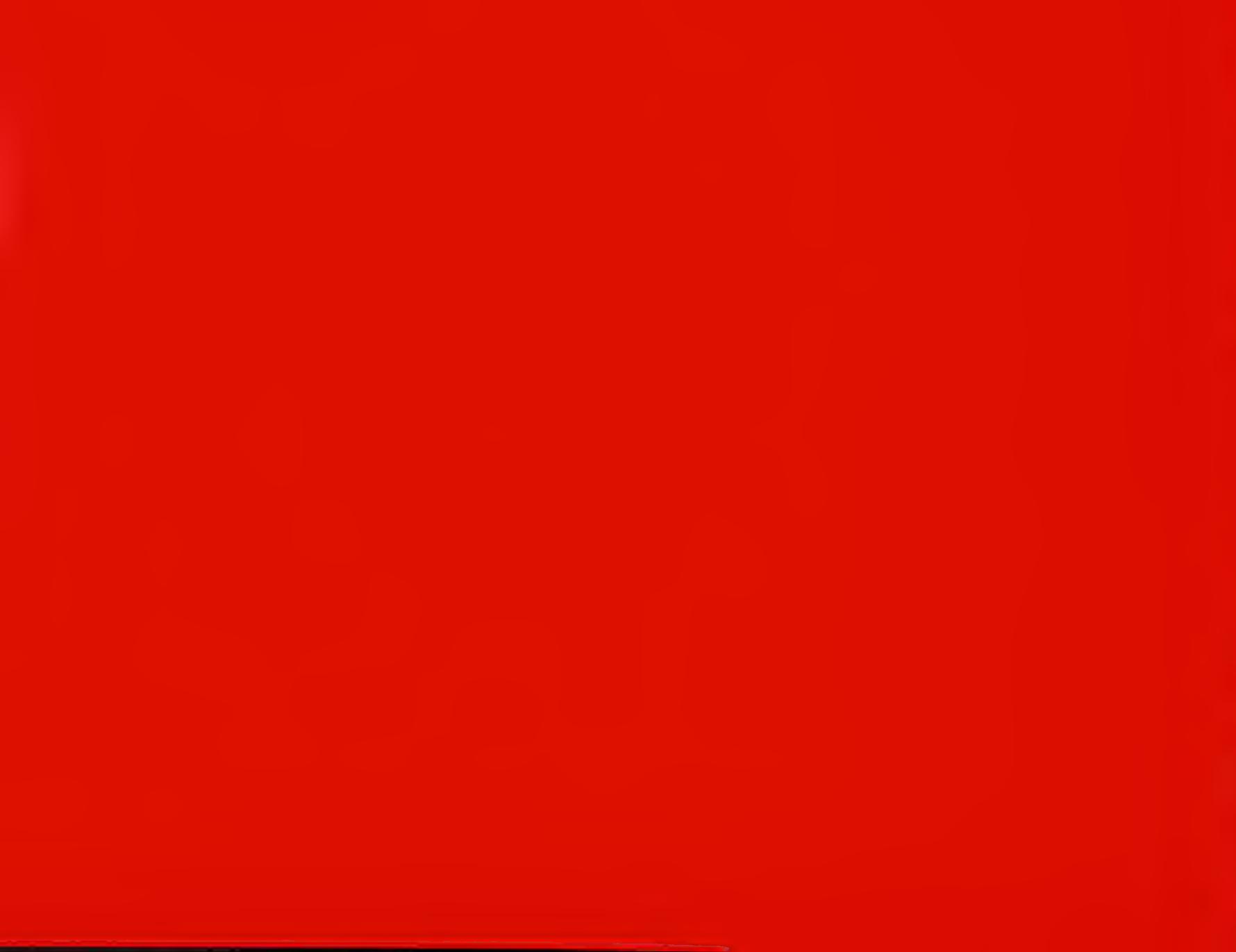


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another chance for cities



another chance for cities

Some approaches to
architecture, technology,
and town planning:
the current program of
the New York State
Urban Development Corporation

Whitney Museum of American Art

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another chance for cities

A companion volume to
the exhibition of the same title
organized for the

Whitney Museum of American Art
by Robert A. M. Stern and John S. Hagmann.
Text by Peter Wolf

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Whitney Museum of American Art
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R.A.M.S. & J.S.H.

introduction

6

The cities are aging, smaller towns are deteriorating and the countryside is emptying. Less than 10 per cent of the land is now used for all urban purposes. The people are clustered tightly; many of them in inadequate housing, working in inconvenient locations, or not working at all because of physical, legal or psychic barriers.

It is expected that an additional 100 million new residents must be housed in America during the next 30 years. In this decade 2.6 million new homes are needed annually. But this year, less than half that number will be built.

Nor will the growing population find its way to new frontiers or settle in uncrowded villages. Instead, nearly 100 per cent of the increased population will be jammed within existing large metropolitan areas.

Old cities; destroyed neighborhoods; a ravaged countryside; insufficient new housing; limited sources of funds for building; construction methods not relevant to our time or to the magnitude of need; these and other unnecessary national inadequacies of a technologically sophisticated and immensely wealthy nation demand a response if there is to be another chance for cities.

A record of inability in private industry and inadequacy of public programs to begin the job of community rebuilding and new community development prompted New York State to establish the Urban Development Corporation in 1968. A unique experiment in government structure, the UDC, a public benefit corporation, is charged with arresting physical decay in the State, with meeting our housing needs, with starting new communities in new ways, with giving our cities another chance.

Whether such an immense task can be accomplished is far from certain. To start, essential new legal, administrative and financial strategies have been developed. They are new tools so fundamental to the mechanics of modern large scale building that it is as if the wheel and lever were being used for the first time. These include:

(a) The responsibility to operate at a wider scale than ever attempted in planning and building in New York State. Villages, cities, counties are often only artificial political boundaries. They are also generally boundaries to planning agency jurisdiction and construction practice. But the interaction between people and places disregards these boundaries. So must our planning and development to house their activities. Thus the UDC, in coordination with local governments and their planning groups, will work on a regional and even statewide scale.

(b) Through its power to sell bonds, collect appropriations and gather subsidies, the UDC presents a large pool of dependable funds to get programs started

that would otherwise remain unfulfilled. A crucial fact is that the funds are available at the earliest stage of each project. Thus careful planning and attention to design, both of which require money and time, are possible. This is not always the case with private developers who start construction at the earliest possible moment to maximize investment return. Once a UDC project has been planned and designed, permanent financing is obtained and then construction, ownership and management are undertaken by private builders.

(c) The UDC is set up to gain maximum cooperation from other State agencies to expedite its program. It also seeks to obtain all of the funds possible from Federal sources. Thus it works for the State at the Federal level to promote wide scale needed building activity at minimal local cost. No private industries have the necessary resources for such programs or the necessary administrative power.

7

Annual production of dwelling units, New York State totals:

1965: 100,000 1966: 85,000 1967: 87,000 1968: 94,000 1969: 81,000

New York City totals:

26,000 23,000 22,000 21,000 16,000

1

Using these tools opportunities have been explored to initiate new housing and other facilities of all sorts across the state. The task is urgent. Production of housing has been declining and older dwellings continue to be abandoned (fig. 1). In the decade we are now beginning, 135,000 new residential units will be needed annually in New York State (fig. 2a, 2b). Without new approaches it seems likely that 45,000 of these will not be built. The UDC expects to try to fill over half of this gap (fig. 3). But not by building housing alone. With housing will come communities and neighborhoods and the badly needed supporting facilities which make them good places to live in.

A new approach to building and rebuilding is signaled in many of the projects included in this exhibition. The customary pattern of urban renewal of the last twenty years has been to relocate people, clear an area, start from the rubble of former structure and rebuild piecemeal. This process takes a tremendous toll on community life. Neighborhoods are ripped apart. Whole areas lie fallow for years,

unyielding from the tax point of view, vandalized visually and every other way. Opportunity is lost for needed housing, wanted neighborhoods, improved places to conduct the routine tasks of living.

In contrast to this old style urban renewal many of the projects in this exhibition confront the possibility of building on sites previously considered unusable, passed by in the unplanned rush of private development; sites of difficult terrain; sites abandoned through obsolescence; sites now devoted to unproductive, single purpose, low profile uses such as rail yards and roadbeds. These sites are usually well located, necessary and useful; most importantly, they can be developed without dislocation of people or disruption of community.

Each of the displayed projects has unique characteristics responsive to location, program and community requirements. For purposes of historic orientation and exhibition structure they are grouped under six titles: waterfront; rail yards; downtown; special problem sites; new towns; technology.

The estimated annual average supply of and demand for new housing in New York State, 1970-1980

Annual demand for new dwelling units: 135,000

increase in vacancies: 5,000

replacement of abandoned or demolished housing: 45,000

new household formation: 85,000

conventionally financed new housing: 65,000

Annual supply of new dwelling units: 90,000

mobile homes: 10,000

low rent public housing: 5,000

publicly assisted new housing: 10,000

mobile homes: 10,000

Filling the gap: 45,000

conventionally financed new housing: 8,000

mobile homes: 8,000

publicly assisted new housing: 4,000

proposed contribution of the Urban Development Corporation (UDC): 25,000

2a

2b

3



waterfront

What made the cities and towns in America has also destroyed them. The 18th and 19th century waterfronts and waterways were exploited for shipping cargo, transporting people and accumulating industry. On such activities cities and towns survived. Used, exploited, but not considered a resource of permanence whose eventual function might change, our waterways have become fouled, our waterfronts decayed.



5

Along rivers and ocean ports, the edge of the city has become a platform for storage, for waste, for private commerce, for uncrossable rail and road conduits (fig. 4). Instead of diversity and shared use, bleak similitude has set in, the edge of the land lost to most of the people most of the time (fig. 5).

In America, waterways have been historically places of serious commerce, and little else (fig. 6). At occasional celebrations devoted to themes of progress and national vitality such as the World's Columbian Exposition of 1893, Chicago's waterfront land was transformed for popular enjoyment (fig. 7). But expositions are not permanent, and the lessons of delight learned at them are generally forgotten in our national passion for industrial ascendancy.

6



Today, certain older industrial and shipping cities like Pittsburgh, Boston, Philadelphia, New York and smaller towns like Savannah and Buffalo are recognizing that the way beyond blight for their waterfronts lies in the direction of fundamental change in use, that the edge of the city, of the town, that unique spot where water encounters land, where climate changes and vistas open, that spot so long the service entrance of our towns, the back alley of our cities, is entering a new age. Recently, with hesitancy, with probing, through immense technical effort and public education, waterside development and redevelopment has been under consideration for recreation, for promenades, for parks, for housing, for citizens' use and enjoyment.

7



fig. 4: St. Paul, Minnesota, 1970, aerial view
(photo: Eric Sutherland)

fig. 5: Hudson River, 1970, looking north from Spuyten Duyvil, Bronx, (photo: James Eisenman)
fig. 6: South Street, view from Maiden Lane, Manhattan, 1828 (courtesy of Museum of the City of New York)

fig. 7: Grand Court, World's Columbian Exposition, Chicago, 1893 (Bettman Archive)



8

Throughout the project area the architect has chosen to expose the automobile as an integral element of residential life in America today. This is accomplished by placing parking docks at frequent and visible locations. An uncharacteristic way of dealing with the motor car, partially dictated by economic considerations, this solution may very well be appreciated by residents because of convenience and be deplored by many architects who would prefer the automobiles tucked out of sight.

12

The second project is along the Harlem River's eastern shore just below the apartment house cliffs which now characterize the west Bronx. The Harlem River Valley is an area once favored for boating, suitable to swimming. One of the most picturesque areas in the city, it was frequently depicted in the 18th and 19th centuries in the most favorable artistic terms (fig. 8). Its present squalid shoreline is the result of industrialization and the subsequent obsolescence of that industrialization, so much so that the eastern shore of the Harlem River Valley is now reduced to an archetypal form of decay (fig. 9).

9



fig. 8: *Harlem River, New York City, 1765* (Bettman Archive)

fig. 9: *Harlem River, New York City, 1970, view from 181st Street Bridge* (photo: James Eisenman)

Sponsored by the New York State Parks Commission, the Harlem River Valley Study by M. Paul Friedberg & Associates projects a linear park development along the river's edge (fig. 12). The park is punctuated by community nodes which will provide not only housing, commercial and community facilities, but also allow the residents of upland areas easy access to the park and river across the barriers of railroad tracks and highway. The Harlem River Park will not be an outdated greenbelt, difficult of access, dangerous because of inactivity, and desolate because of insufficient facilities. Rather it will be an integral part of richly conceived community facilities. It will serve as a resilient backyard for neighborhoods and as a regional amenity to its area.

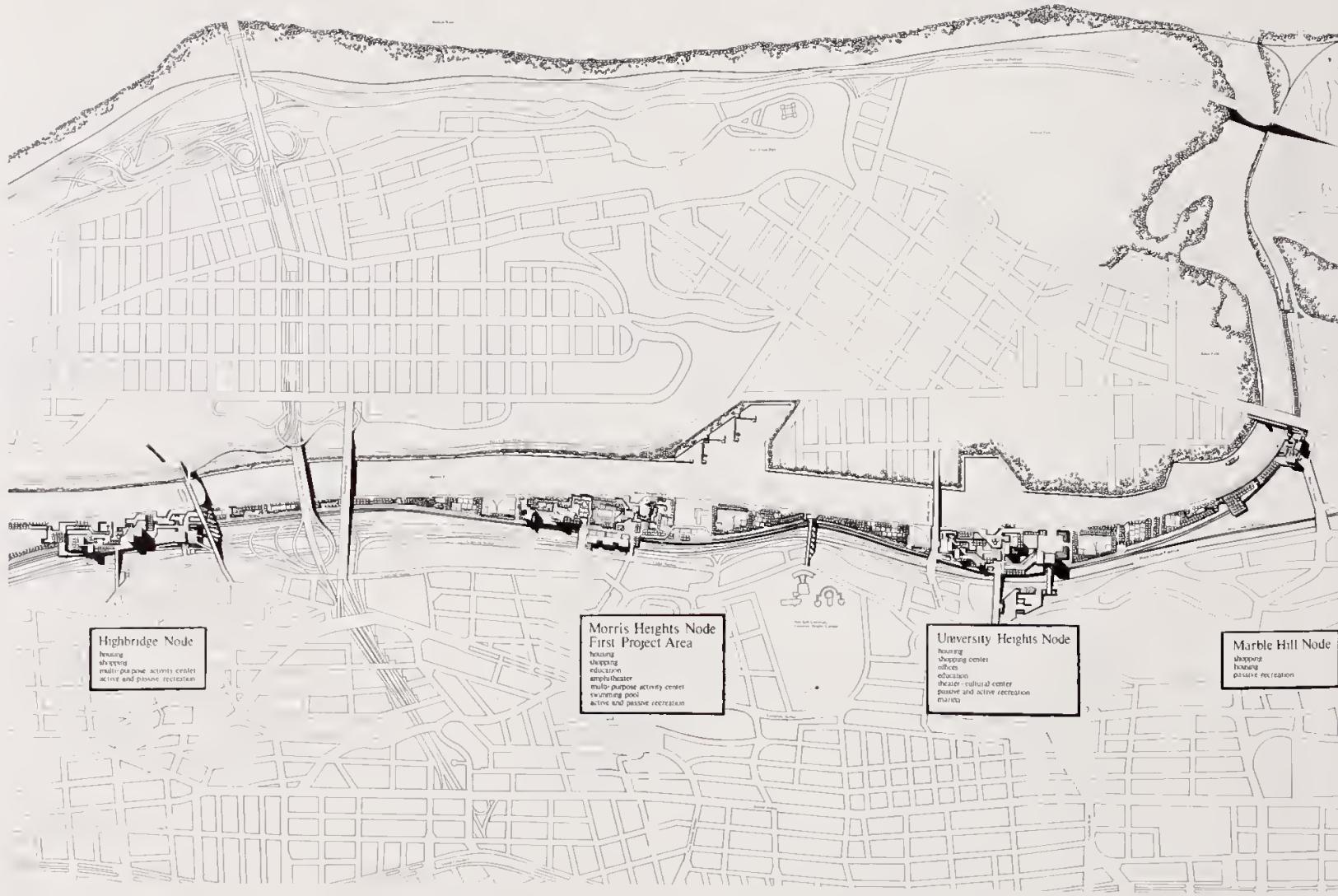
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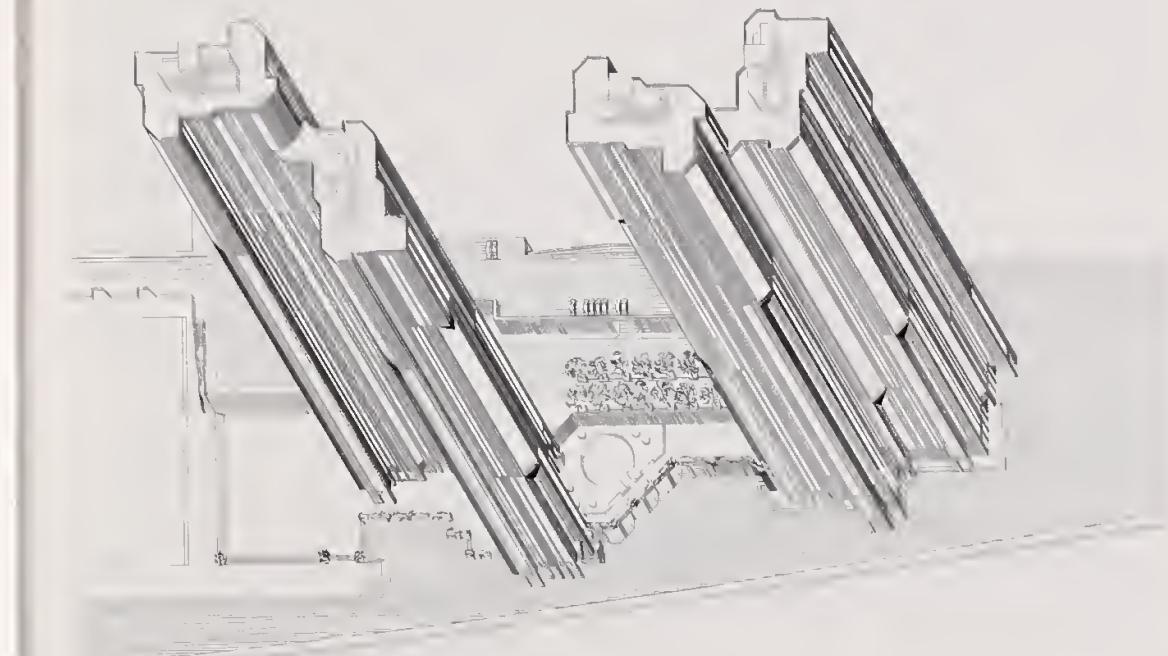
Waterfront Development
Buffalo
Paul Rudolph, architect

*fig. 10: site plan
fig. 11: view of crescent*

16



12



13

Harlem River Valley
Bronx
Davis, Brody and Associates, architects, M. Paul Friedberg and Associates, landscape architects and urban designers

*fig. 12: overall valley development plan
fig. 13: isometric view of apartment towers*

17

rail yards



14

The railroads slashed through America. By the end of the 19th century they replaced shipping as the principal means of goods movement and mode of travel. They spanned America, linked older communities, and created new ones. But as they united the country they divided its cities. "The other side of the tracks" became a national expression of scorn; wide, active, filthy rail yards commanded space in city centers. At their edge unmanageable blight of sound, soot, cinders and social decay spread.

As late as 1913 Park Avenue in mid-town Manhattan was an open rail yard dividing the city (fig. 14). Through a brilliant combination of economic foresight and bold development, the tracks were decked over and built upon (fig. 15). Simultaneously needed new space became available in the city and a festering gash that divided mid-town Manhattan and infected its own perimeter was removed.

Earlier proposals by far sighted men had anticipated the potential for covering rail conduits and linking them to housing and commercial spaces. In England, where the use of the subway was pioneered, William Moseley proposed to the House of Commons as early as 1862 an innovative scheme for coordinated housing, public and commercial space decked over a proposed rail transit line (fig. 16).

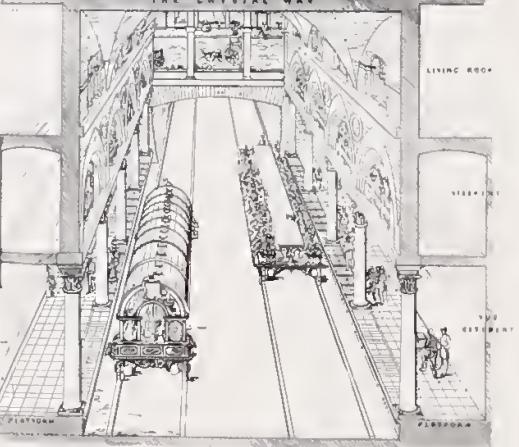
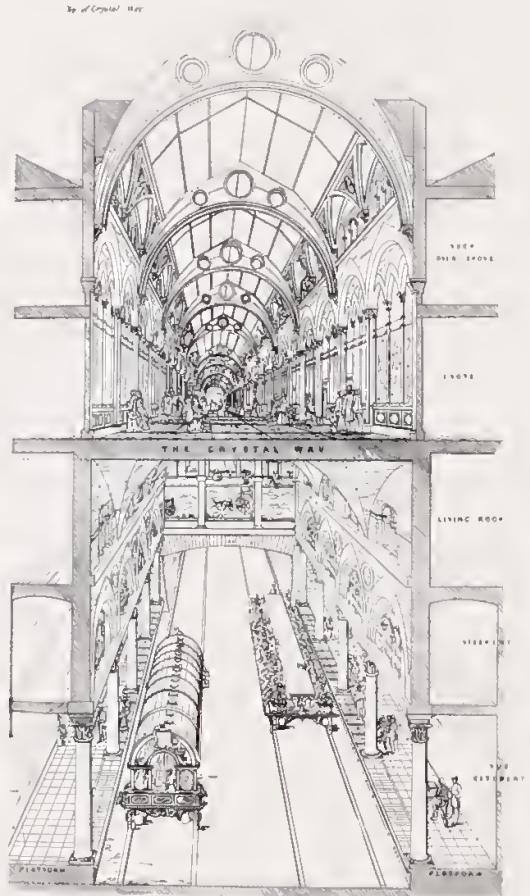
More recently, cities like Chicago have recognized the importance of decking over the tracks and building on the new surface. Rights to utilize the air space above the rail yard have thus been sold. For the same reason rights above certain streets and sections of highways have gained a marketable value in recent years.



fig. 14: Park Avenue, looking south from 50th Street, showing excavations preliminary to the construction of Grand Central Terminal, Manhattan, 1908 (Bettman Archive)

fig. 15: view of Park Avenue before the Grand Central Office Building was begun (Underwood & Underwood)

But building on decks over rail or road presents immense problems that only very special circumstances have been able to overcome. The major problem is cost. Wide span decks needed to allow rights-of-way to function below are very expensive. Ventilation must be assured. Without electrification "air-rights" projects would be impossible above rails. Motor car exhaust still renders long spans of covered road highly impractical. Air space for the deck and everything above it must be purchased or leased. To amortize these premium costs, only highly profitable real estate development has been possible such as Park Avenue luxury apartments and commercial areas at the city center.



A promising opportunity has been identified in Queens where the Sunnyside rail yards preempt other utilization of 300 acres of land. The open yards are dangerous and create a formidable barrier to activity and interchange (fig. 17, 18). Sunnyside yards are in the middle of Long Island City, an active manufacturing center accessible by major transportation lines to all parts of New York City. In the immediate vicinity are older residential areas of Jackson Heights and Sunnyside Gardens, a distinguished landmark in community planning of the 1920's designed by Clarence Stein and Henry Wright.

The proposal for the Sunnyside yards by Gruzen and Partners is a diagram for a sound process and procedure of development rather than a hardened description of building types and placement (fig. 19a, 19b). Above the decked rails a multi-level urban district is proposed. High density housing and offices are superimposed over retail and commercial uses, and these in turn over industry, loft space and parking. At the principal deck level, a pedestrian promenade and mall is planned; at the level of the yards (which will continue to function) transportation facilities of all sorts for people and goods link all areas of the city and the region. A large measure of industrial space will provide needed jobs in manufacturing and a type of space in increasingly short supply in the city. It will also offset decking costs through payment of commercially scaled rents. When this long term program is realized, a divisive rail yard will become the foundation of a vital new urban subcenter.



Another opportunity to reuse rail yards is a 33 acre tract along the Genesee River adjacent to Rochester's downtown. It remains underutilized as an obsolete rail-riddled industrial zone. In the same city there is a housing shortage: 20 per cent of all dwelling units are deemed deficient in quality; 84 per cent of all dwellings were constructed before 1930. The Genesee River project area offers a double opportunity to recapture waterfront land and to reuse obsolete rail yards.

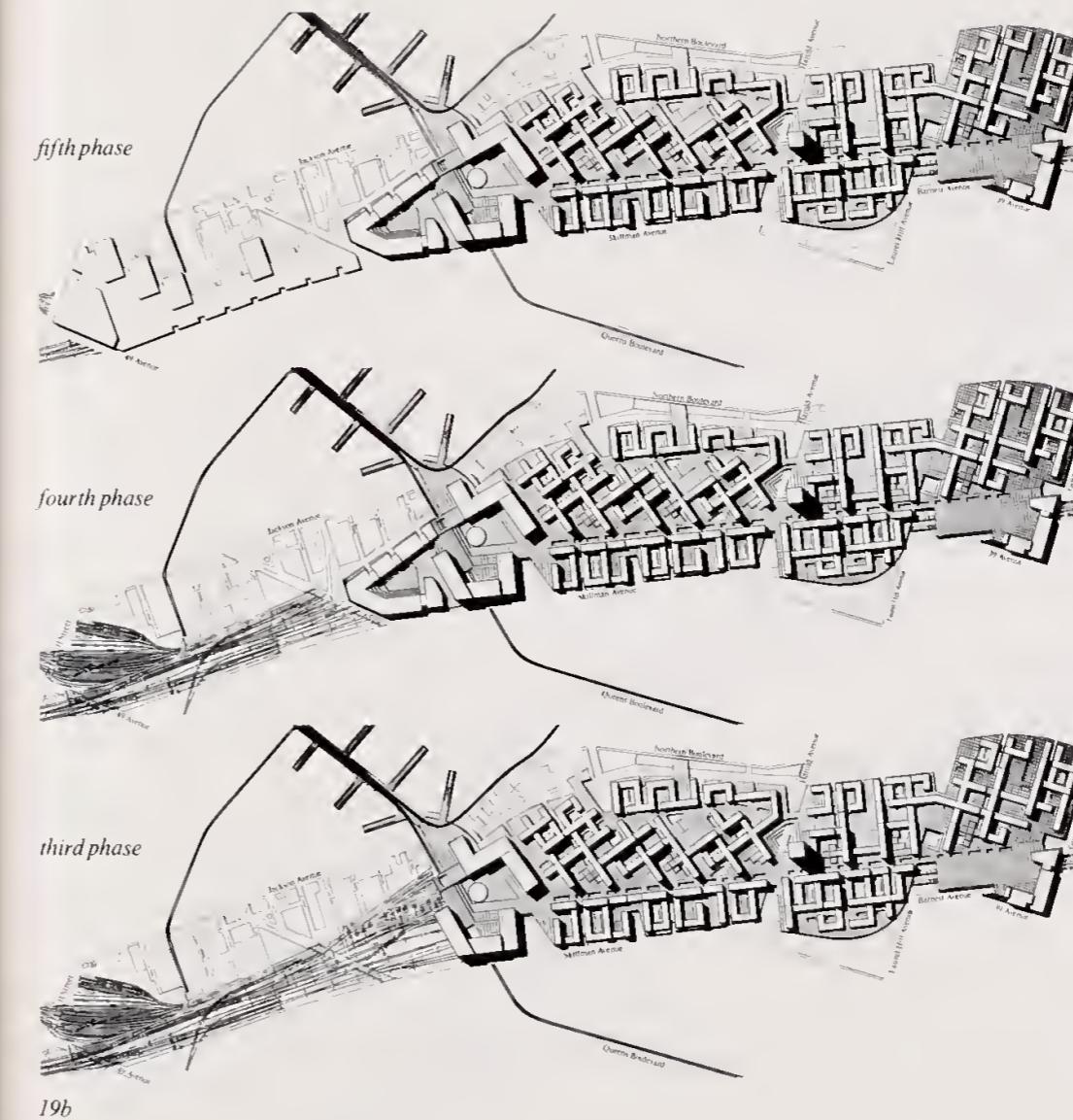
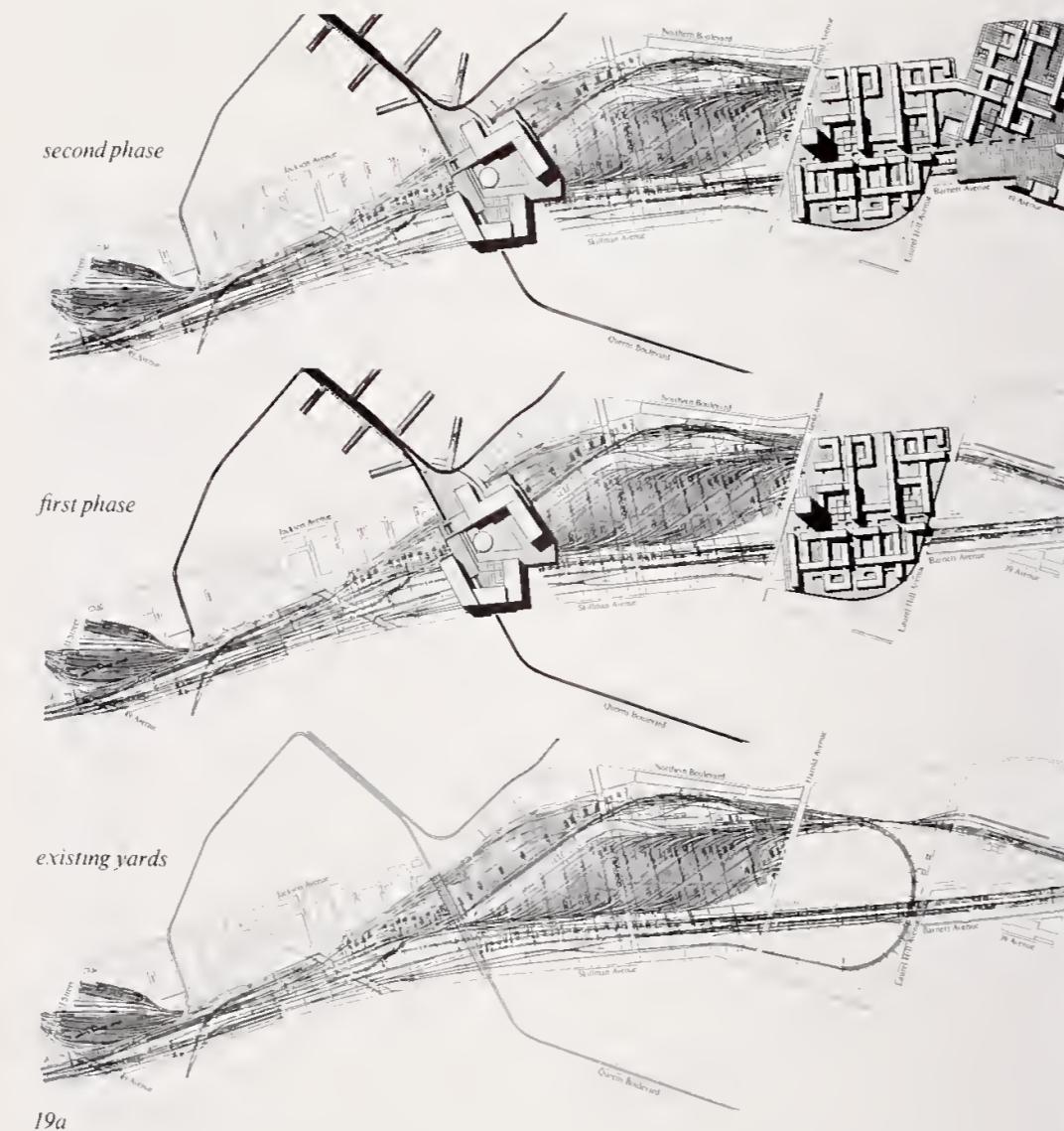
In conjunction with rail relocation and rail use consolidation, Conklin and Rossant architects propose a comprehensive program for housing 1,200 families (fig. 20, 21). These new accommodations, many with river views, are integrated with community, retail, service, day care and parking facilities. Over 20 per cent of the site is devoted to active and passive recreation areas including a waterside park and promenade with spectacular views upstream to the University of Rochester, and downstream to the office towers in the city center.

This site, which borders the Inner Loop roadway and the proposed Genesee Expressway, has direct highway connections to all parts of downtown Rochester and the New York State Thruway. Express bus service from the city center is expected.

fig. 16: William Moseley, proposed Crystal Way, London, 1862

*fig. 17: Sunnyside Railroad Yards, 1969, aerial view
(photo: Urban Development Corporation)*

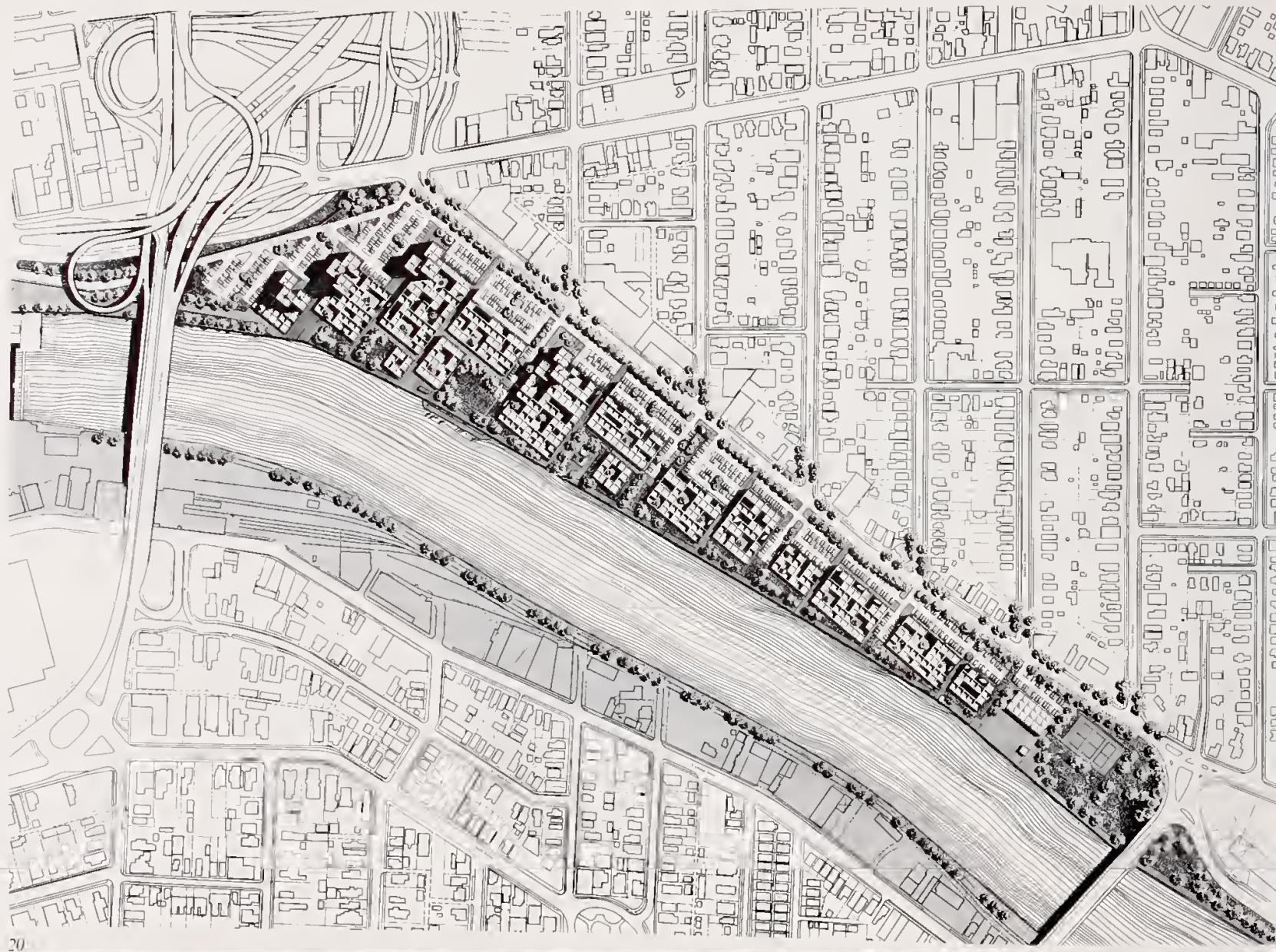
*fig. 18: Sunnyside Railroad Yards, Queens, 1970
(photo: James Eisenman)*



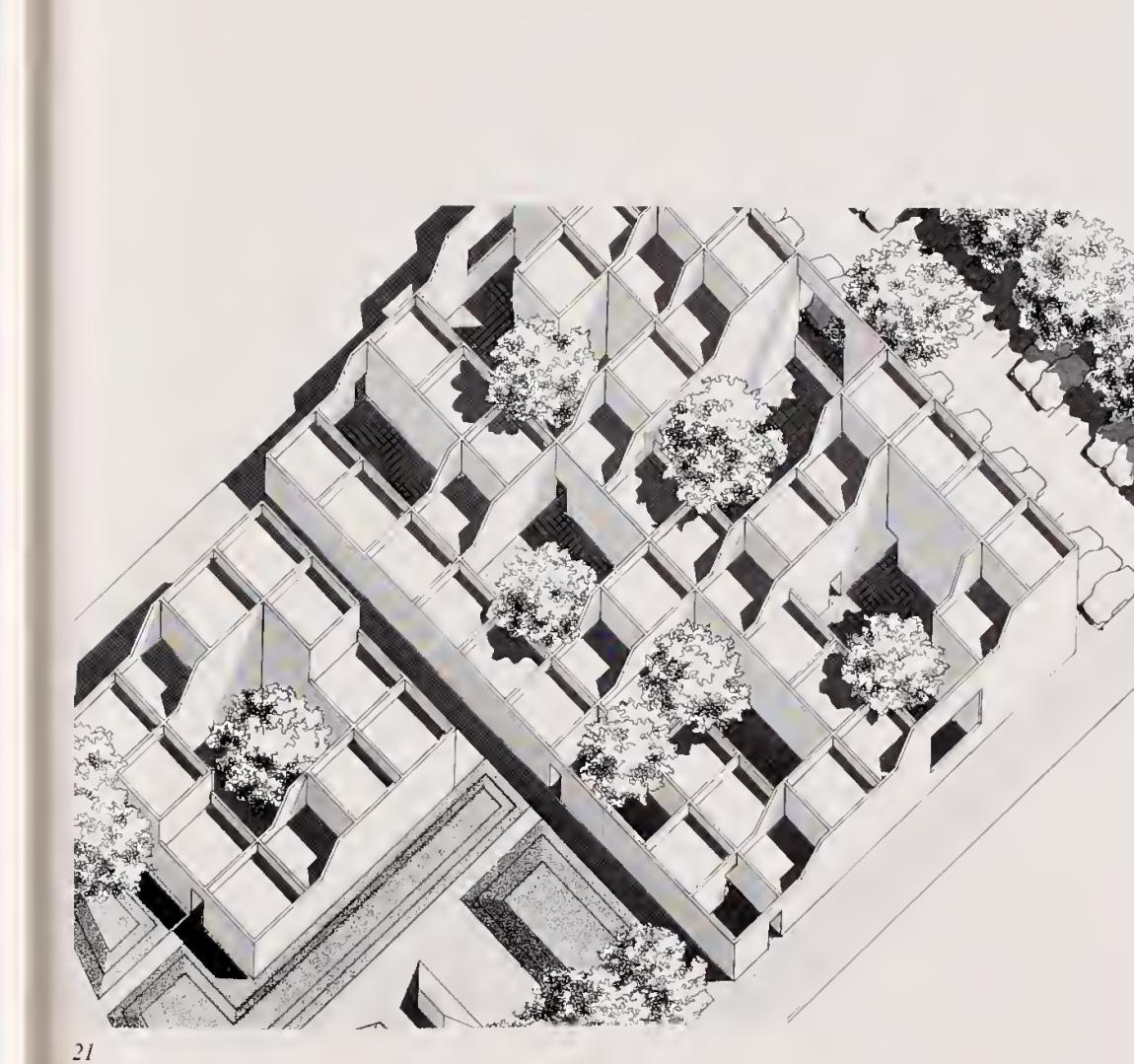
Sunnyside Railroad Yards
Queens
Gruzen & Partners, architects

fig. 19a, 19b: schematic site plans showing project phasing

24



20



21

Genesee River Houses
Rochester
Conklin & Rossant, architects

*fig. 20: site plan
fig. 21: bird's eye view of a typical patio compound*

25

downtown

26

Forty years ago in America, government, cultural life, entertainment, job diversity, shopping variety and a range of housing alternatives could still only be found in a tight matrix around the city center which came to be known as "downtown."

Then, slowly, hardly perceived, the purpose for downtown began to disappear. Ports lost their dominance; rail terminals lost ground as focal points for transportation and freight. The automobile was perfected, trucks enlarged and a national network of bridges, highways and new roads opened up the countryside. New residential development in open land and less costly sites for industrial and commercial centers proliferated at the edge of cities and beyond. The shopping center; the satellite office park; the residential subdivision replaced earlier counterparts which had comprised downtown. Focus and concentration at urban centers was replaced by a national profile of spread, sprawl and distance.

As need and purpose were drained from downtown, and as the mobile young middle class moved from the congestion of the cities to newer accommodations and larger spaces in the suburbs, the centers of the nation's cities became residues rather than resources. Residues of inflexible commercial endeavors; of outdated utility systems; of older and disadvantaged people unwilling or unable to adapt to the spaced out formation which American life had assumed. Today, cities and their downtowns are at a critical point in time. Some will be renewed, revitalized. Many will probably dissolve before newer patterns of development.

Among American city planners there are contrary views about the importance of old style cities and their downtown districts. More conventional urbanists, accustomed to traditional city organization based on European models, feel that dissolution of the center implies a loss to the region. Without the center, they argue, the profile of life, like the profile of community, becomes diminished and debased. Others respond that the linear sprawl along highway networks found in Houston and Los Angeles is the updated modern form of the late 20th century American city. A tight center is inconvenient and irrelevant when movement has escalated from pedestrian to automotive scale, when communication is as effective by electric and electronic connection as by face to face meeting.

The debate goes on, but all agree that some downtowns are worth saving. Especially those which combine a strong historic tradition with dynamic contemporary purpose. Albany is such a place. It is the State's capital city where tightly grouped facilities for offices, hotels, commercial space, meeting space and in-town residences are all needed.

At the beginning of the century Albany was a busy center of commerce and government; the intersection of the Hudson River and Erie Canal; an interchange point between national rail lines; a city with grand boulevards, booming trade and active government function. But with the automobile came suburbs. New development located at the periphery. With the airplane came diminished need for visitors to stay overnight or for extended periods on political or government business. Shortly after World War II a large government complex was built in the suburbs. But now State government offices are returning to the downtown area. And Albany needs a revitalized downtown.

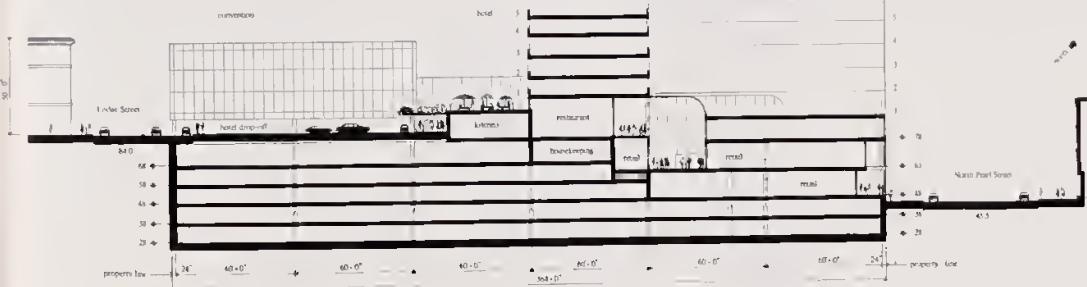
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To discover its potential Gruen Associates have undertaken initial study of Albany's commercial core. Proposed redevelopment in the vicinity of the once prominent Ten Eyck hotel is recommended (fig. 22). Focus is on the intersection of the principal ceremonial street leading to the capitol building, State Street, and the principal shopping street of the city center, North Pearl Street.

The purpose of the Gruen study, illustrated in the exhibition on film, is to discover the most suitable mix for redevelopment of this crucial central area of Albany. Multi-level opportunities grow out of the steep slope of State Street, enabling commercial space to be organized on a series of plateaus linked by escalators, with an office building and hotel containing convention facilities above. Movement through the complex would also provide an attractive and comfortable means of climbing the steep and often inclement State Street incline.

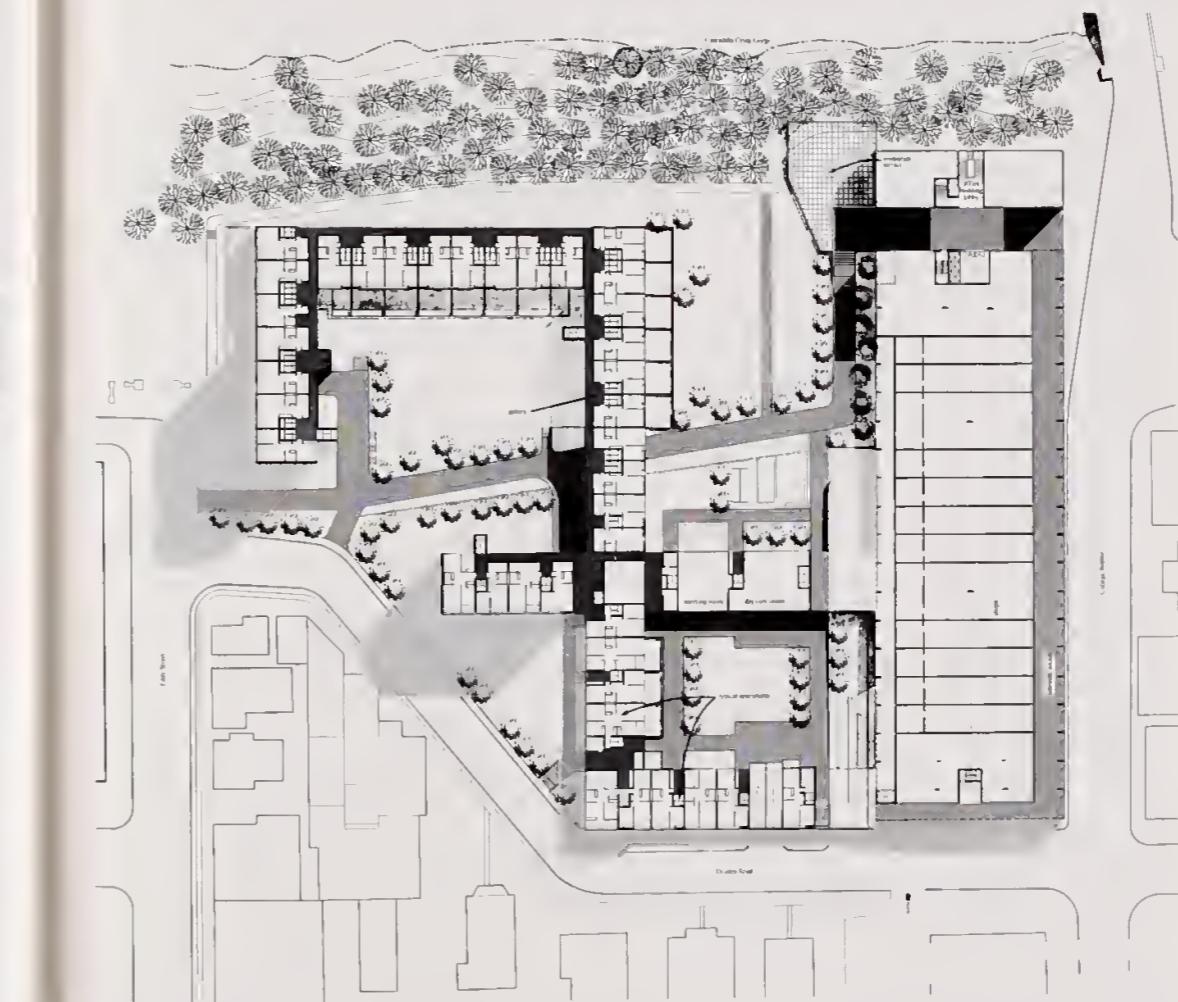
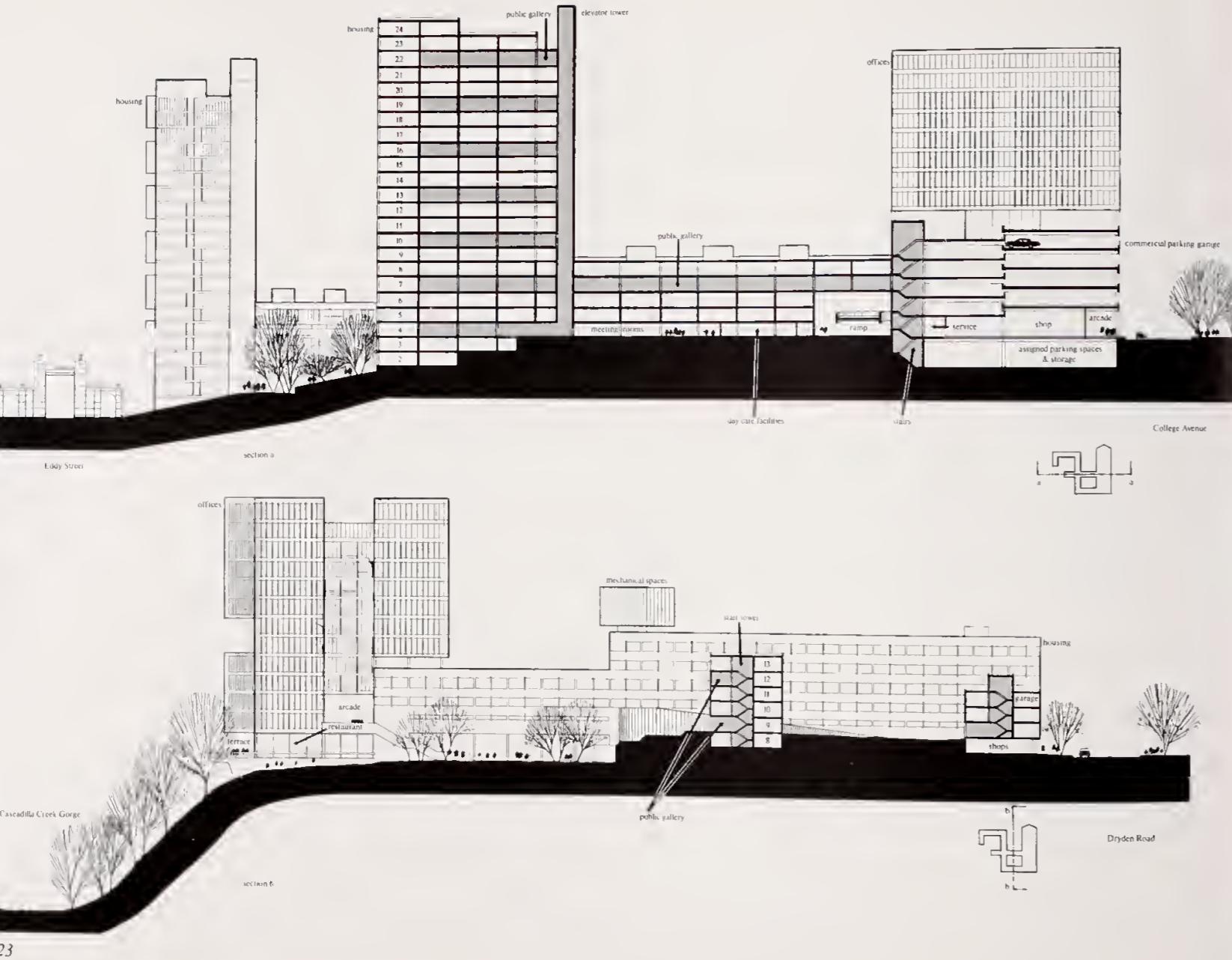
In Ithaca, on a site adjacent to the campus of Cornell University and to downtown, Sert, Jackson and Associates propose a mixed use structure intended to strengthen the link between university and community (fig. 23, 24). The growing needs of this area and of the college community and the demands of this key location call for an intensity of use and scale greater than that now found in Ithaca's downtown. Integration of this new scale with the existing area is an objective affecting design. Within the proposed structure, 375 apartment units will be attached to commercial space, to an office tower, a parking garage and a cinema. It is possible to move through almost the entire multi-story diverse organism in sheltered public galleries which connect to the vertical circulation systems. The building perimeter forms three outdoor spaces each of different scale and character. And College Avenue, the main commercial spine serving the university, is strengthened by a shopping arcade surmounted by convenience parking.

22



Ten Eyck Site
Albany
Gruen Associates, architects

fig. 22: east-west section

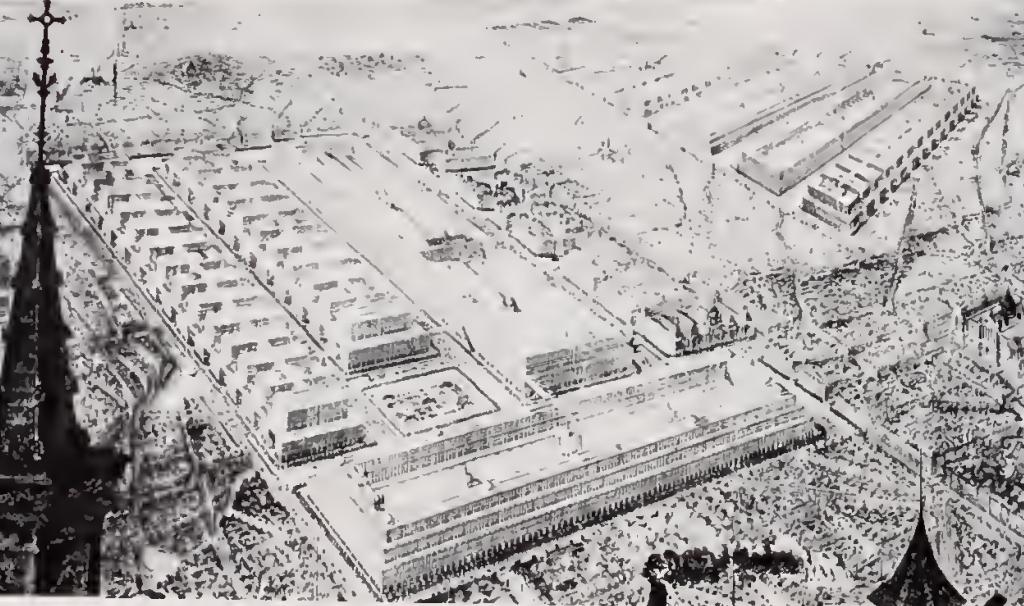


East Hill Multi-Use Development
Ithaca
Sert, Jackson and Associates, architects

fig. 23: sections
fig. 24: site plan at College Avenue level (fourth floor)

special problem sites

32



25

Old communities in older cities have been victimized for generations by private speculation and public redevelopment. Both have been generally indiscriminate in their approach, inhumane in their motivation and uninventive in their reutilization of land. Even when motivation was exemplary, results were often detrimental to residents and community.

As early as 1865, for example, Henri-Jules Borie, a French utopian social philosopher, proposed building large scale and tall super block housing, which he called *Aérodômes*, in old and debilitated *quartiers* of Paris (fig. 25). He intended to improve the living conditions for working people recognizing as he did over 100 years ago that "... in densely populated urban areas, the air is polluted; light is meager . . . the noise produced by vehicles is disturbing to everyone . . . existence itself is more difficult, and notably the rent is unreasonably high."

Borie's scheme was innovative and imaginative in many ways. Internal park areas are included; schools, churches and other community facilities are placed on *Aérodôme* roofs. Pedestrian walkways surround the perimeter of his building at upper levels and elevated pedestrian bridges cross intervening surface streets to assure safety and convenience. Yet Borie failed to recognize how much would be destroyed to gain the space needed; how many people would have to find satisfactory new housing and what the impact of this large modern development would be on the established neighborhood.

26



fig. 25: Henri-Jules Borie, proposed *Aérodômes*, Paris, 1865

fig. 26: Stuyvesant Town, Manhattan, 1947 (photo: Thomas Airviews)

The *Aérodômes* were not built. But the superblock approach has become a simple expedient that, even now, dominates urban redevelopment. For this reason, more often than not, total obliteration of the old precedes large scale, high density rebuilding. Stuyvesant Town of 1947 and the Lincoln Center complex of the late 1950's are characteristic products of this old style urban renewal (fig. 26).

Refinement to that approach is evident recently. A landmark project is the West Side Urban Renewal Area where rebuilding and renovation have proceeded together (fig. 27). The need for increased housing densities as well as improved community facilities has prompted new building along wider avenues, combined with stores, day care centers, schools and so on. At the same time, a sensitive recognition of scale modulation, neighborhood character and desired accommodation alternatives has led to the preservation of good quality older townhouses.

33

The projects introduced in this section fall into three major categories. The first including Twin Parks (a portion of which designed by Richard Meier is now under construction) and Coney Island Scattered Sites is a vest pocket program within a highly complicated existing community situation (fig. 28-35). The second group including Frawley Circle, St. Nicholas Park and Coney Island West (now under construction) represents an effort on the part of the UDC to put into motion urban renewal projects that have been dormant for as long as ten years (fig. 36-41). The third group of projects includes the Binghamton State Hospital Site and Ithaca Scattered Sites. These represent efforts to meet the challenge of difficult terrain within the cost limitations of low and moderate income housing programs (fig. 42-45).



27

All of these projects place emphasis on a wide range of apartment types from studios to five bedroom family units so that a mixture of ages and life stages are represented in the community. Commercial and community spaces are integrated generally along principal streets to serve both the newcomers and the established residents. Special attention is paid to extremes of old age and youth. Duplex apartments abound as they yield more interior space by reducing exterior requirements, and permit better ventilation as well as greater potential for variety in living arrangements. Everywhere there can be found signs of unusually detailed attention to residents' needs and regard for the users' likely requirements not commonly found in publicly assisted housing design.

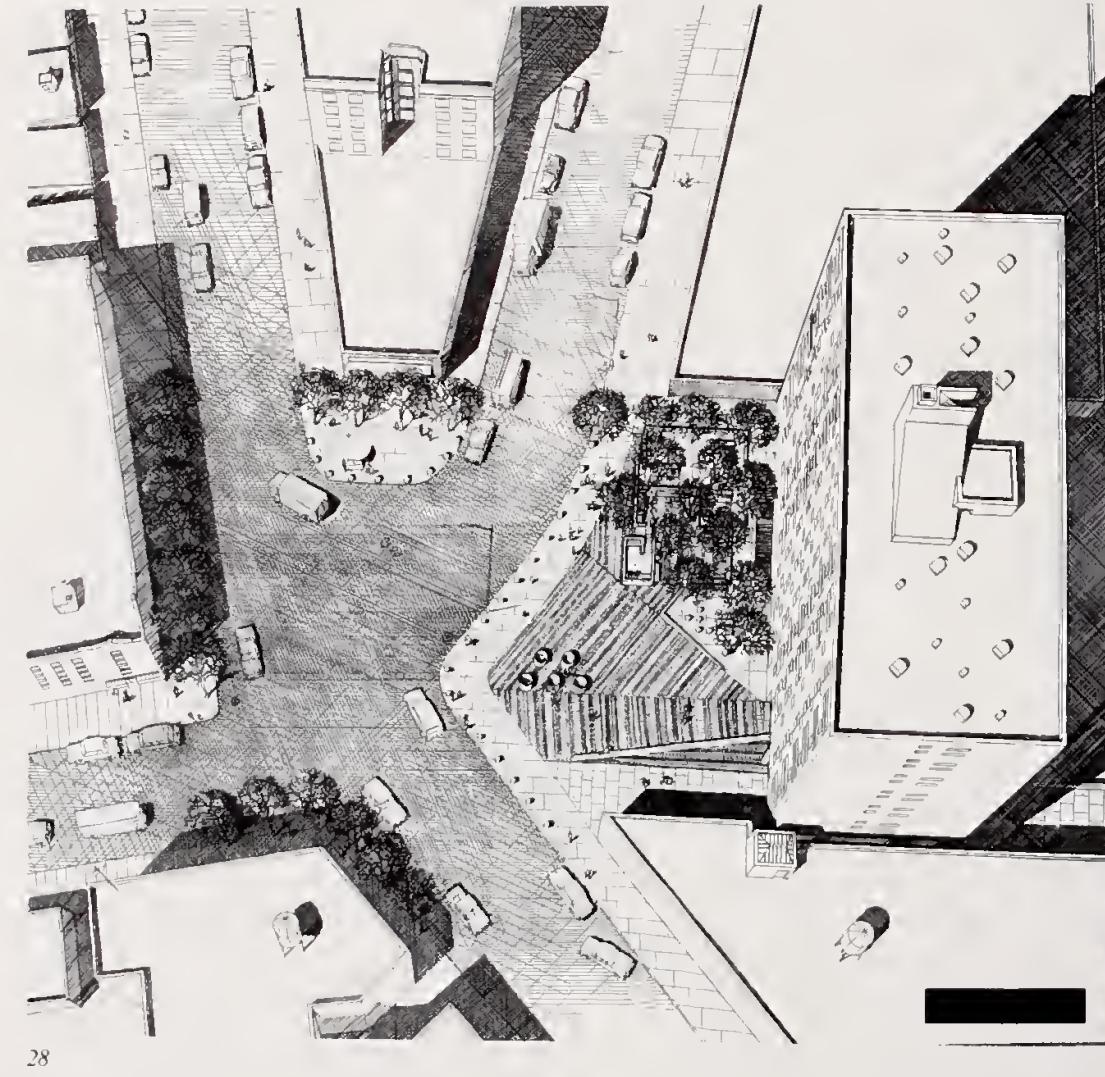
The Binghamton and Ithaca sites are distinguished from others included in this section by not being in an urban center. On hilltops at the edge of town, they share with some of the Twin Park sites complexity of terrain which makes construction costly while offering special design opportunities.

Ulrich Franzen's design for Binghamton calls for a variety of housing accommodations along the most level edge of the hillside. The clusters include shops, multi-purpose community facilities, a teen and elderly center, recreation facilities and a day care center. Extensive land is reserved for park, play, school and other community needs.

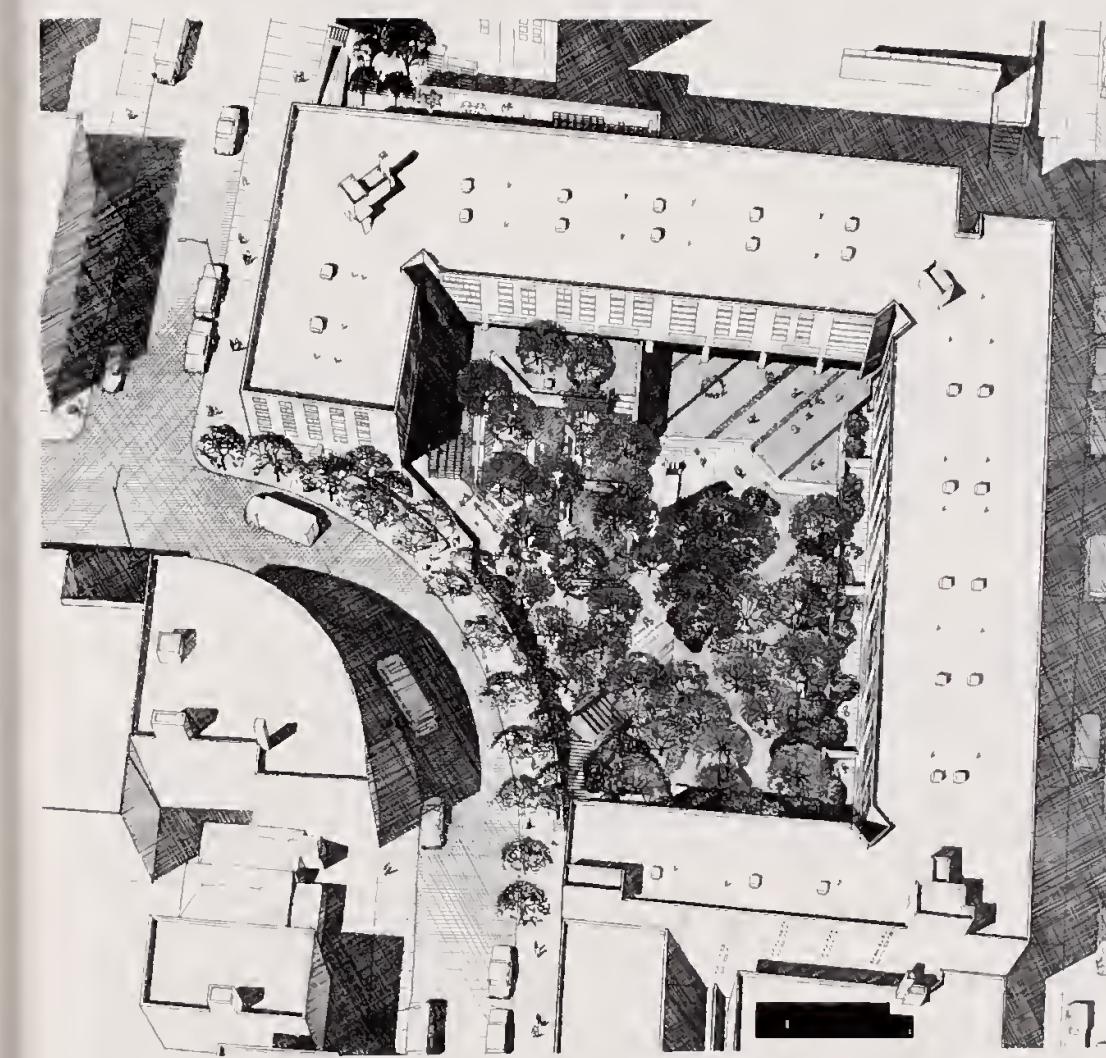
The housing clusters are relatively isolated in a community where the life style is essentially suburban with the car representing the link between community and individual, and the detached dwelling representing the living accommodations that most aspire to. Yet single family dwellings are practically impossible to create within financial restrictions now imposed on low and moderate income housing especially on so difficult a site, where the cost of utilities and roadwork is very significant. Therefore an effort is made through the combination of much open space and clustering to provide an economically sound urban density within a suburban ambience.

Werner Seligmann's proposal for Ithaca is located on West Hill, a prominent hillside overlooking the town. The emphasis, similar to that in a European hill town, is on dwellings of maximum privacy and view without sacrifice of the inherent urbanity of a tightly grouped site plan. The high rise building, conceived as a gateway to the development, is distinguished by its organization which, through the use of an elevated pedestrian street permits all families to feel in close continuity with the landscape.

fig. 27: West Side Urban Renewal Area, Manhattan, 1970 (photo: James Eisenman)



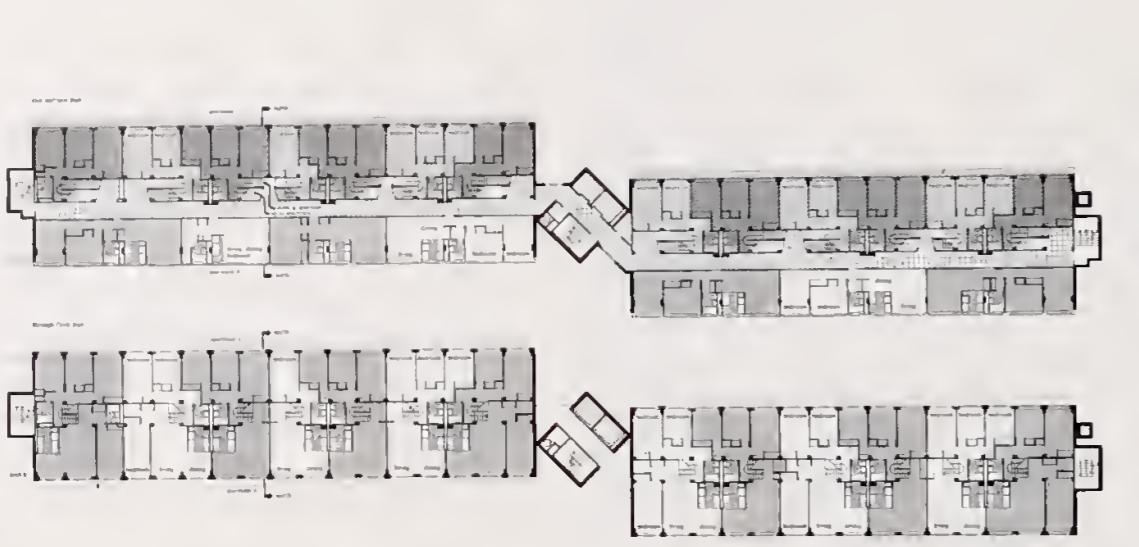
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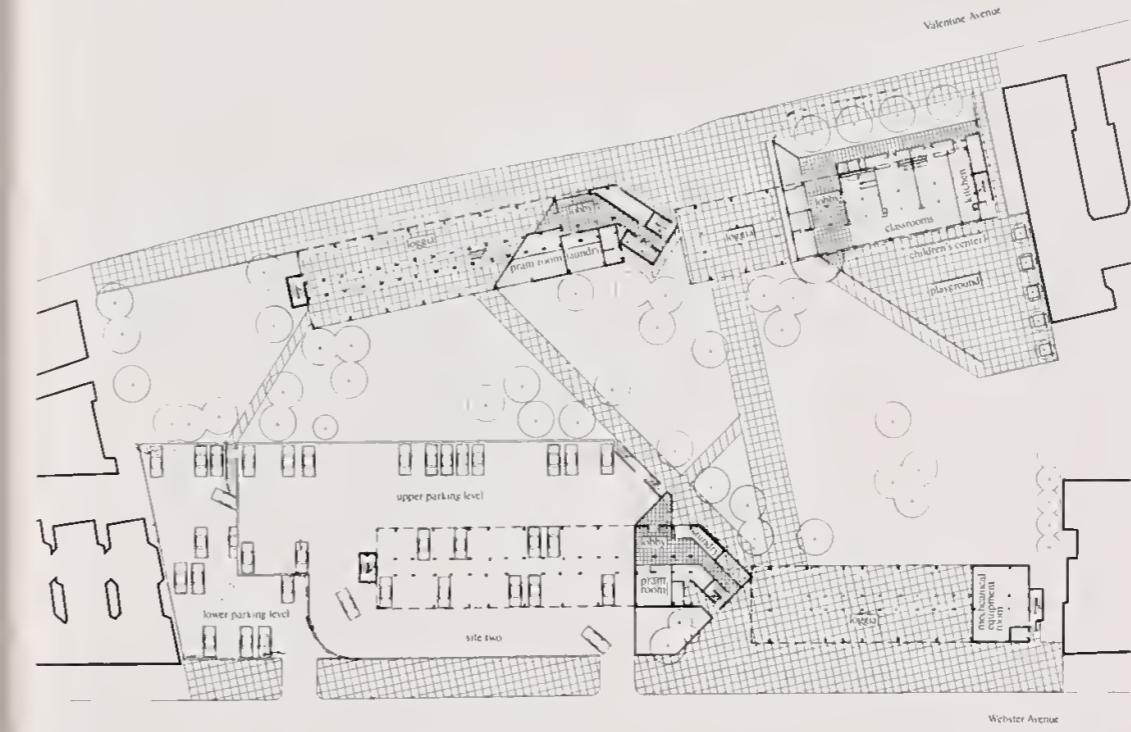
Twin Parks West
Sites 4-5
Bronx
Prentice & Chan, Ohlhausen, architects, Raymond T. Schnadelbach, landscape and ecological consultant

*fig. 28: site 4 bird's eye perspective
fig. 29: site 5 bird's eye perspective*

38



30

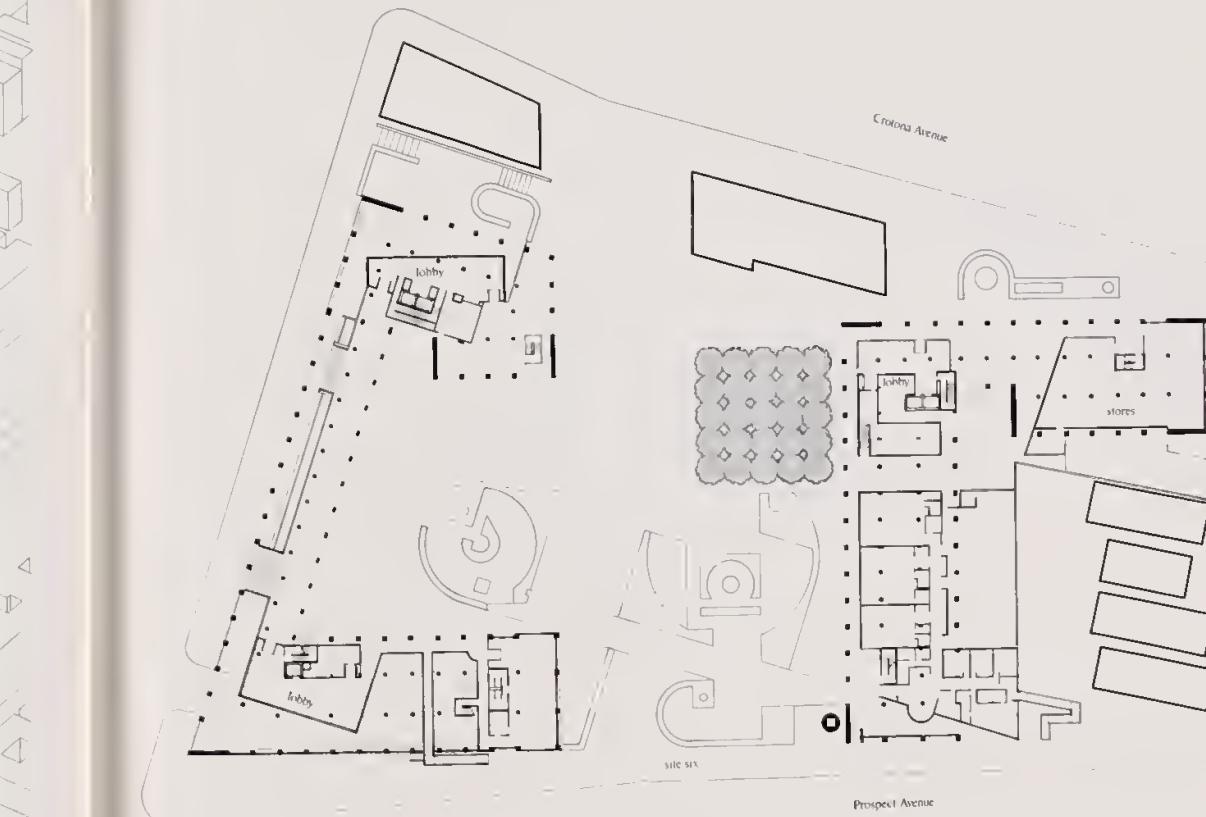
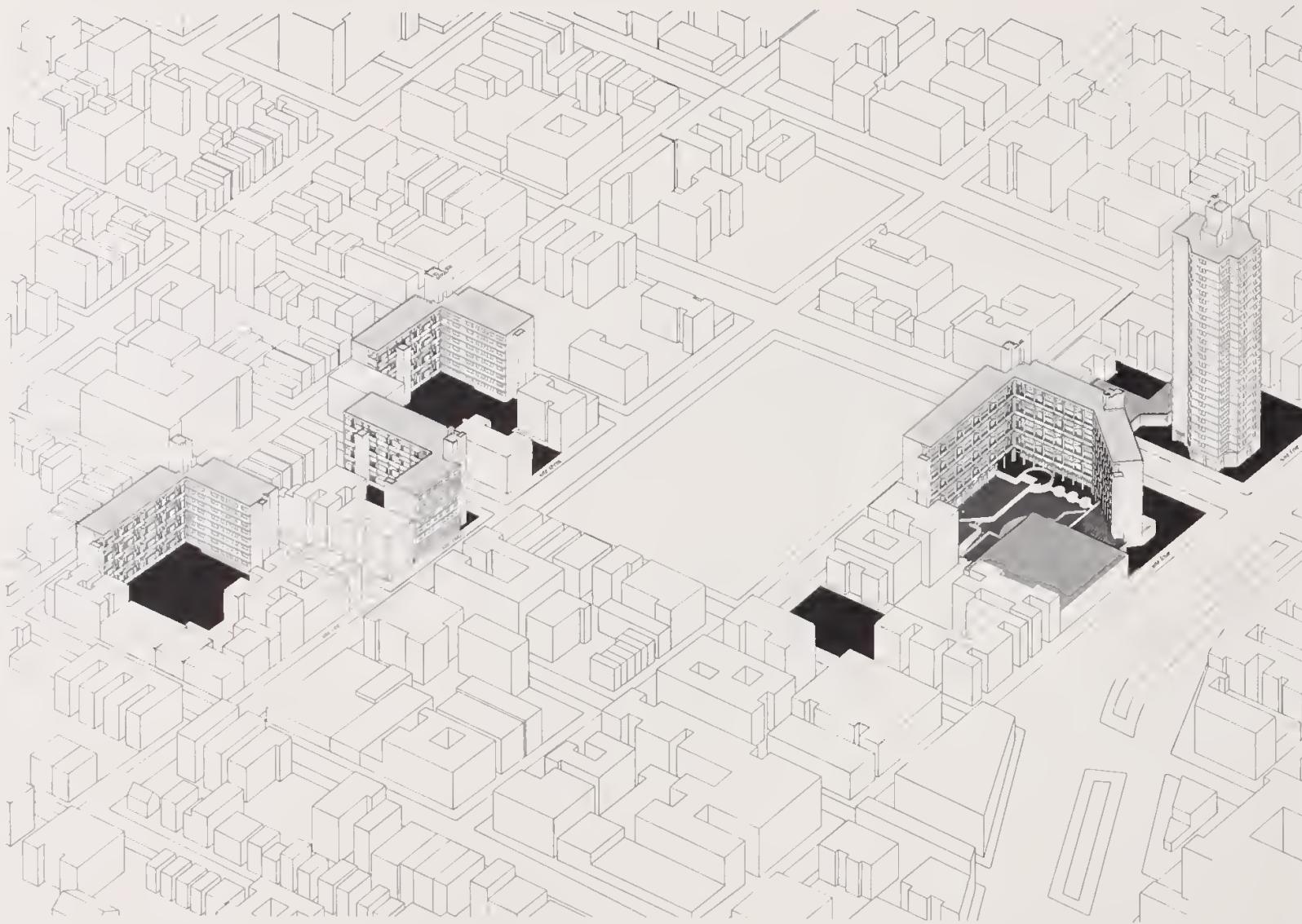


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Twin Parks West
Sites 1-3
Bronx
Giovanni Pasanella, architect

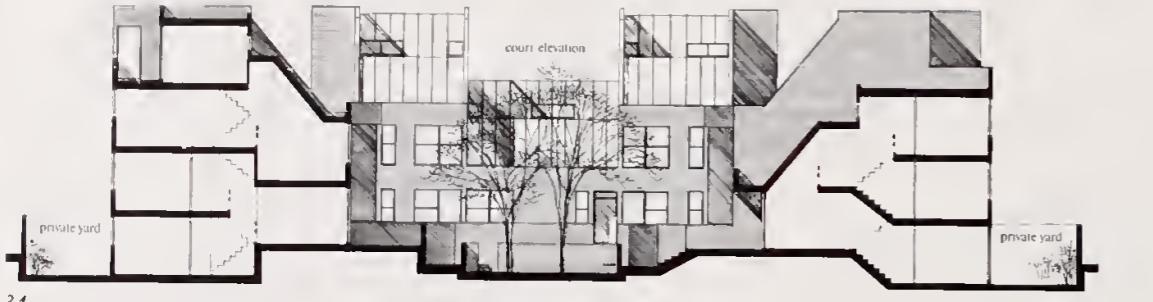
*fig. 30: typical floor plans and section
fig. 31: plan, site 2*

39



Twin Parks East
Bronx
Sites 1-5
James Stewart Polshek, architect
Sites 6-7
Richard Meier & Associates, architects

fig. 32: sites 1-5 bird's eye view
fig. 33: plan, site 6



court elevation

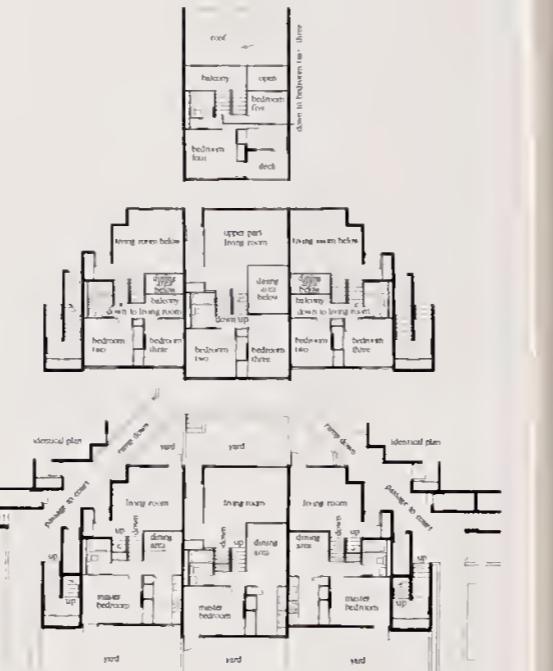
private yard

42

private yard

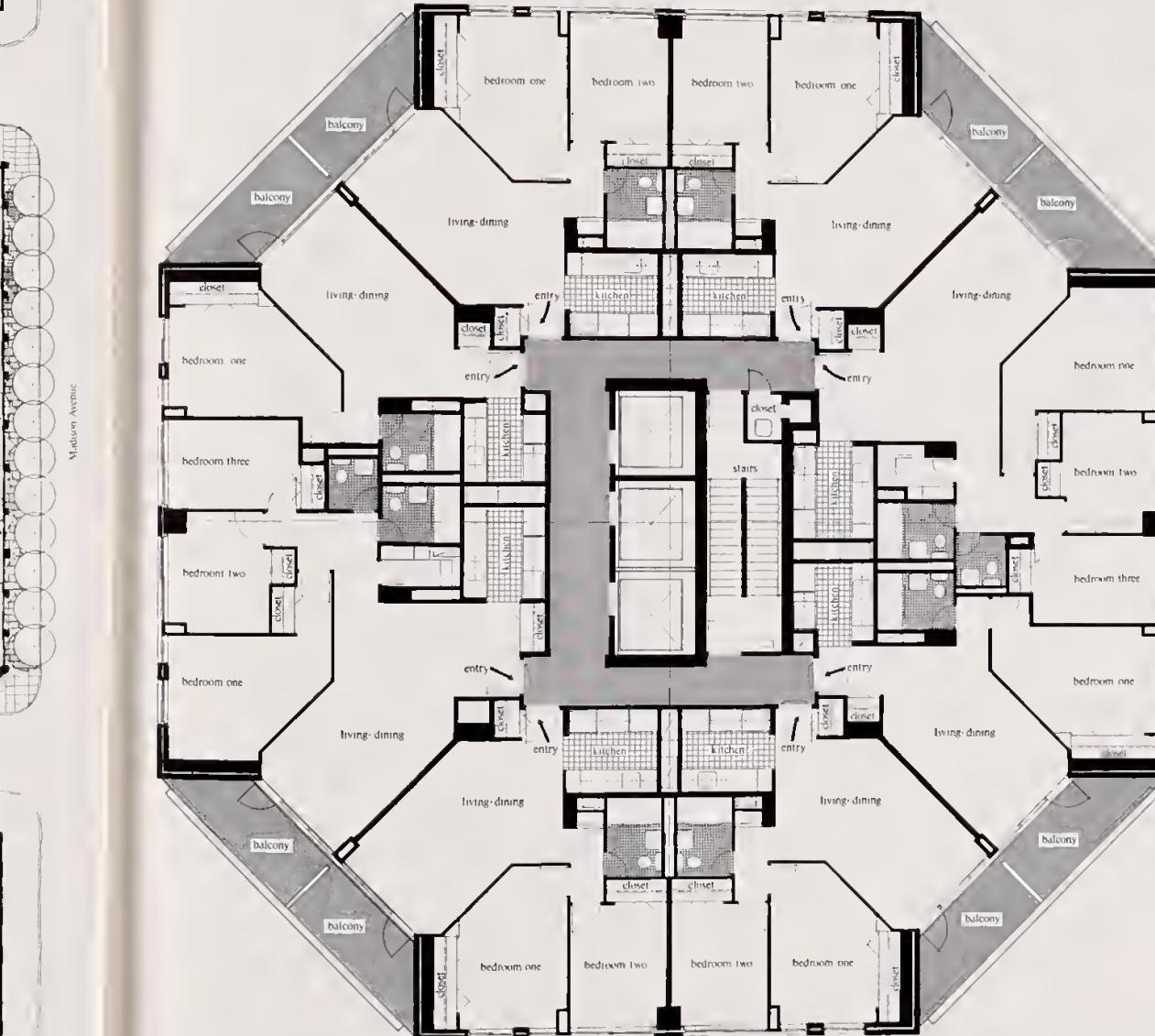
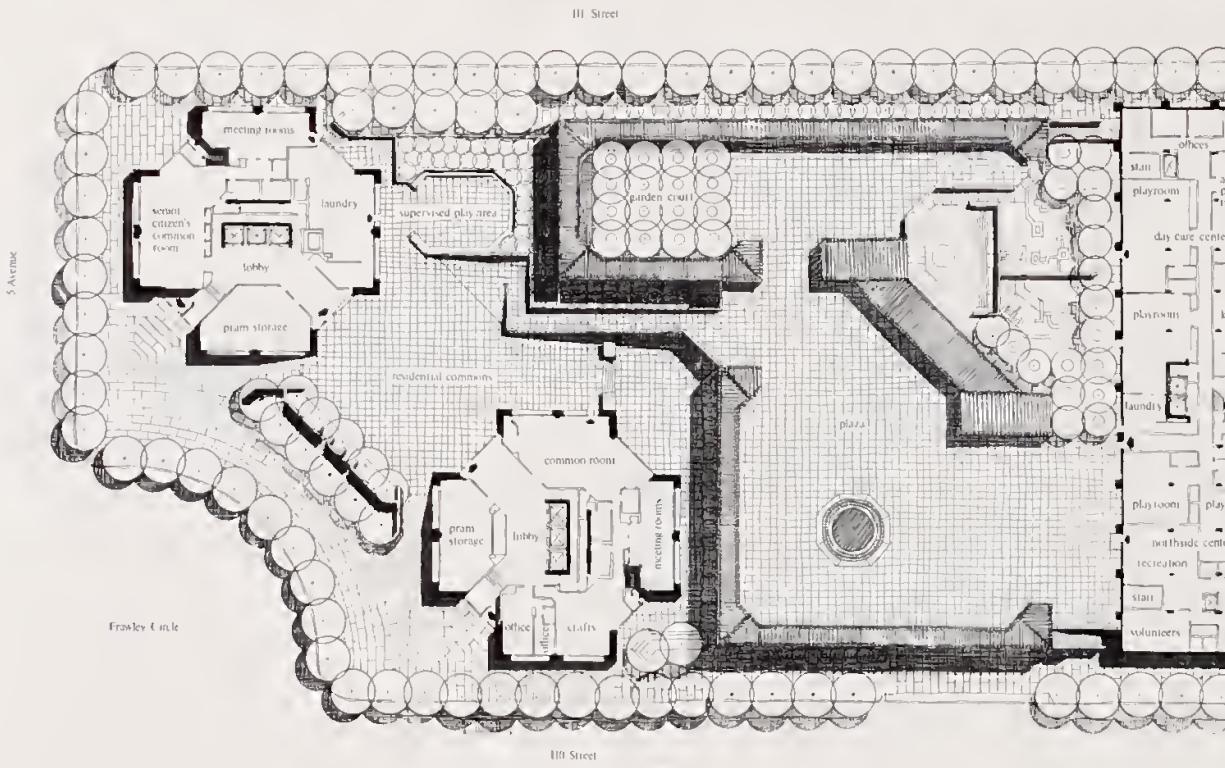
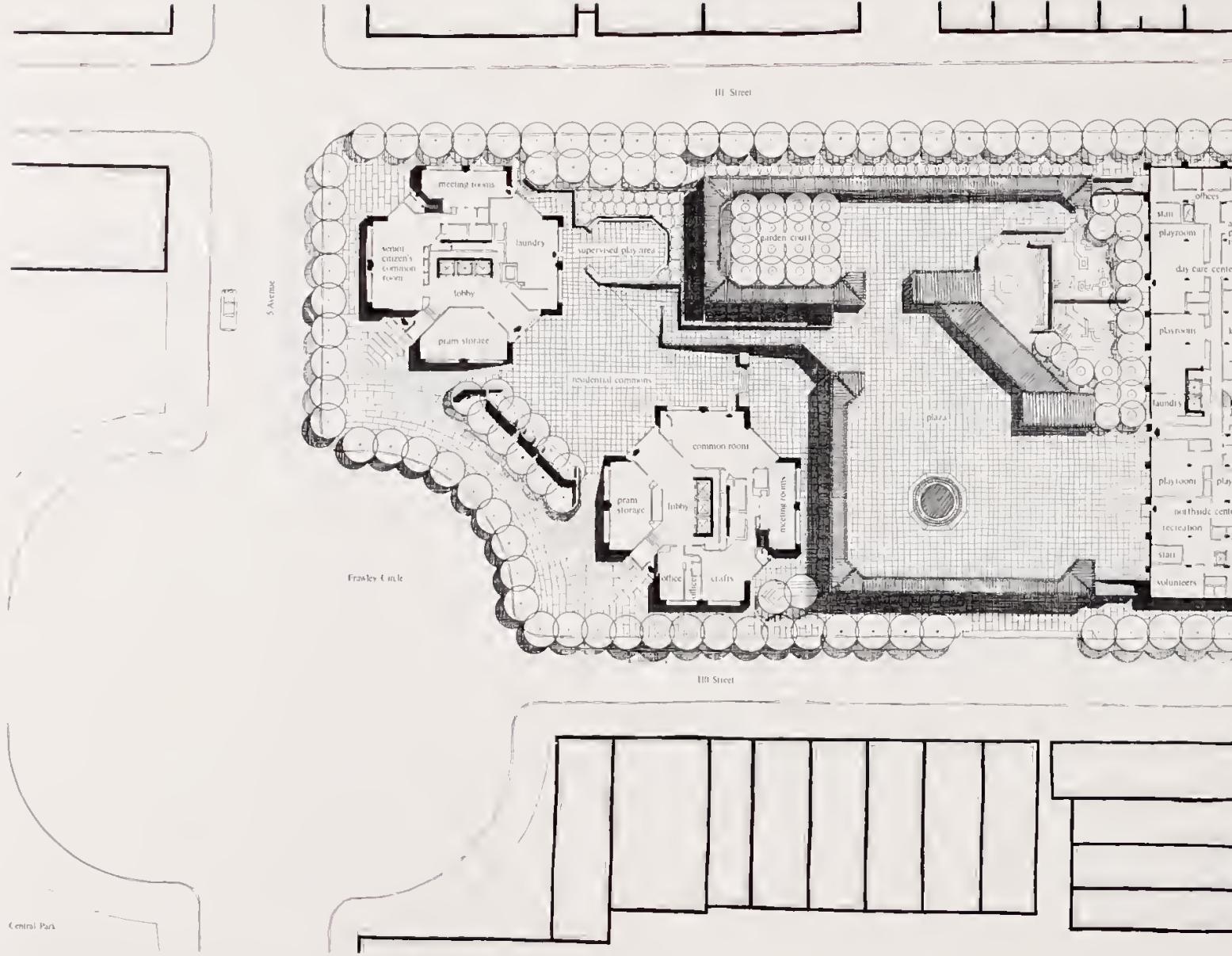
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42



Coney Island Scattered Sites
Brooklyn
Roger Decourey Glasgow, architect

fig. 34: courtyard elevation and typical apartment plans, site 11
fig. 35 site 10 view from West 28th Street

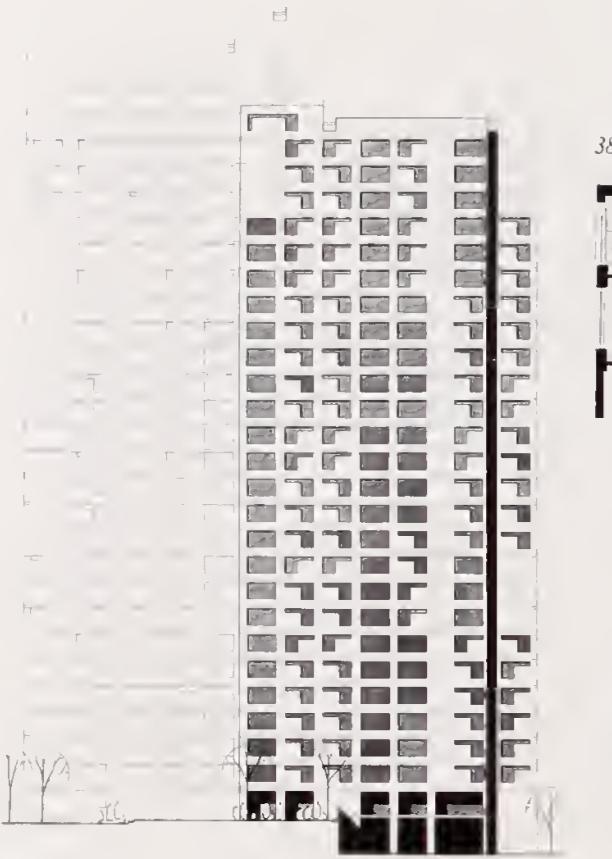


Frawley Plaza

New York

Gruzen & Partners, Castro-Blanco, Piscioneri & Feder, associated architects, Andres-Miceli-Weed, landscape architects

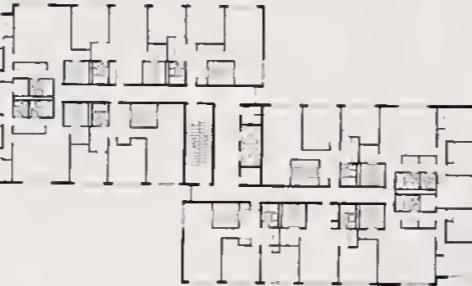
*fig. 36: site plan
fig. 37: typical tower floor plan*



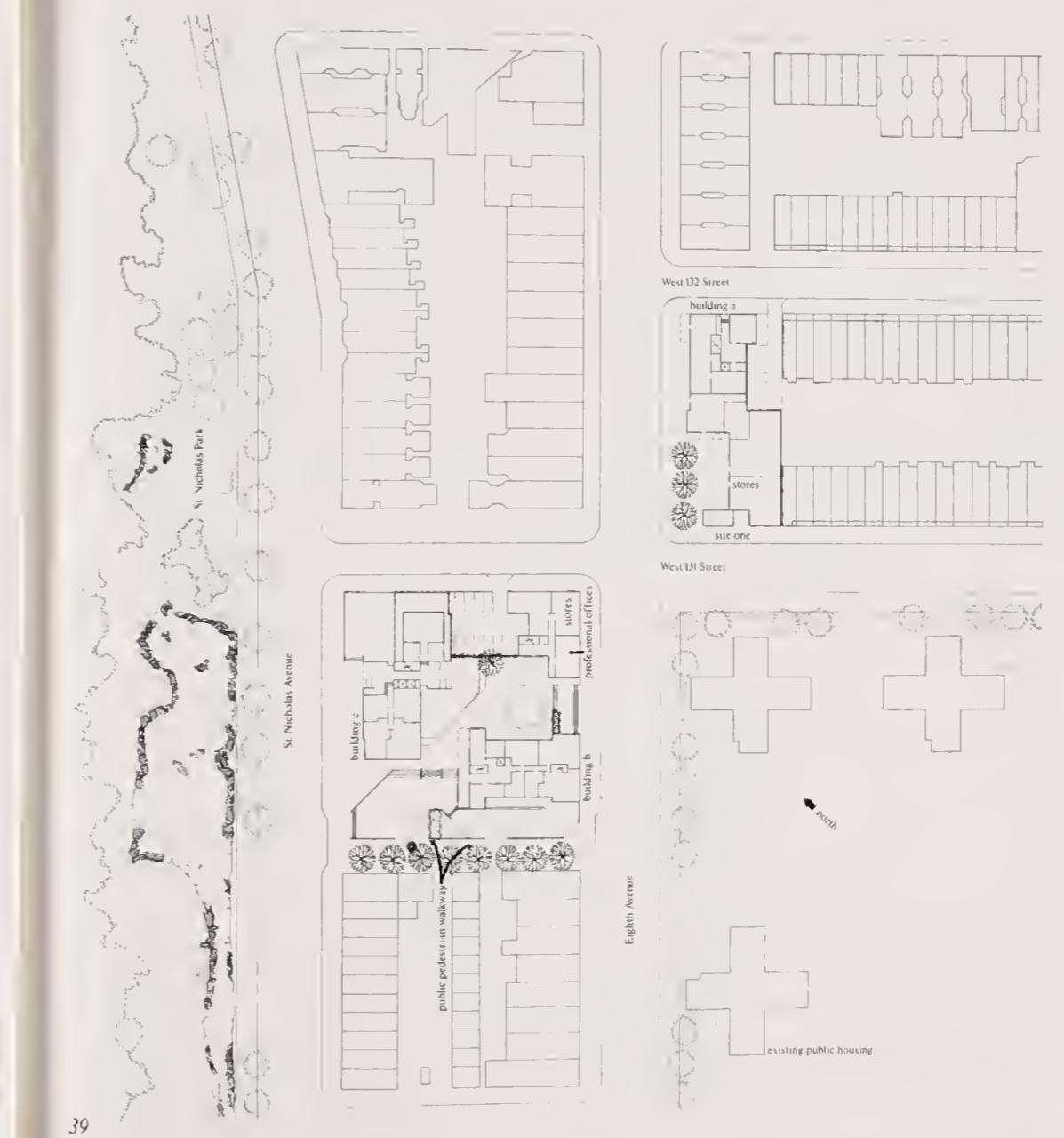
38a



38b



38c



39

St. Nicholas Park Housing
New York
Bond-Ryder Associates, architects

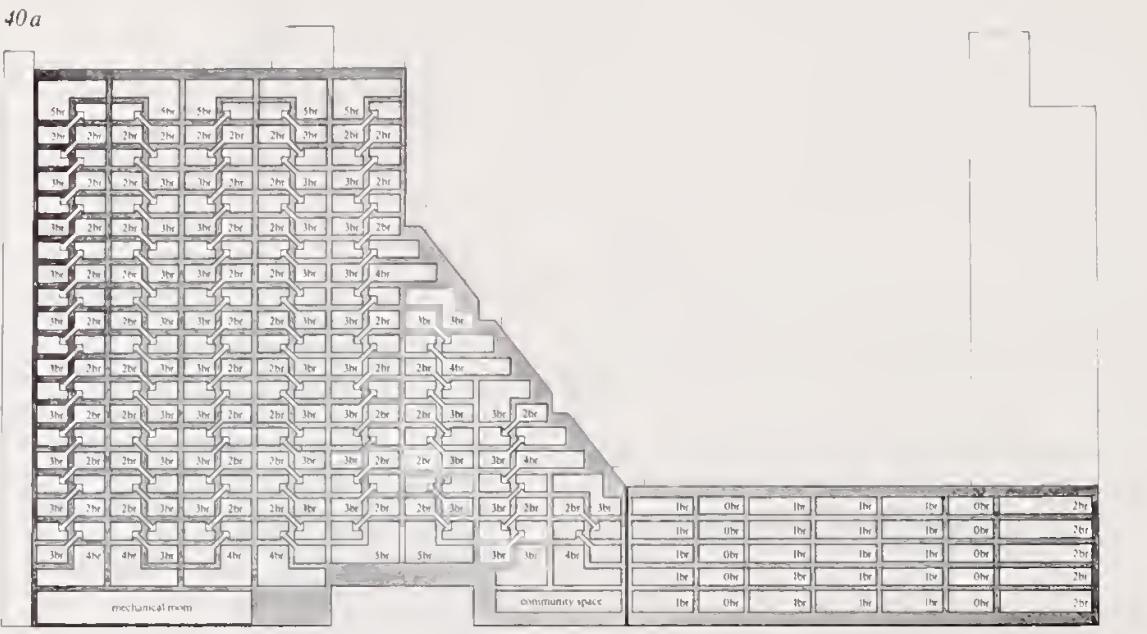
fig. 38a: east elevation building "c"

fig. 38b: detail plan of efficiency & three bedroom apartments

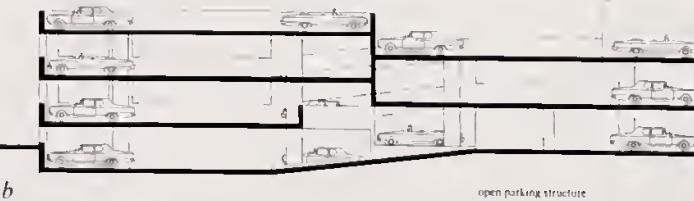
fig. 38c: typical floor plan

fig. 39: site plan

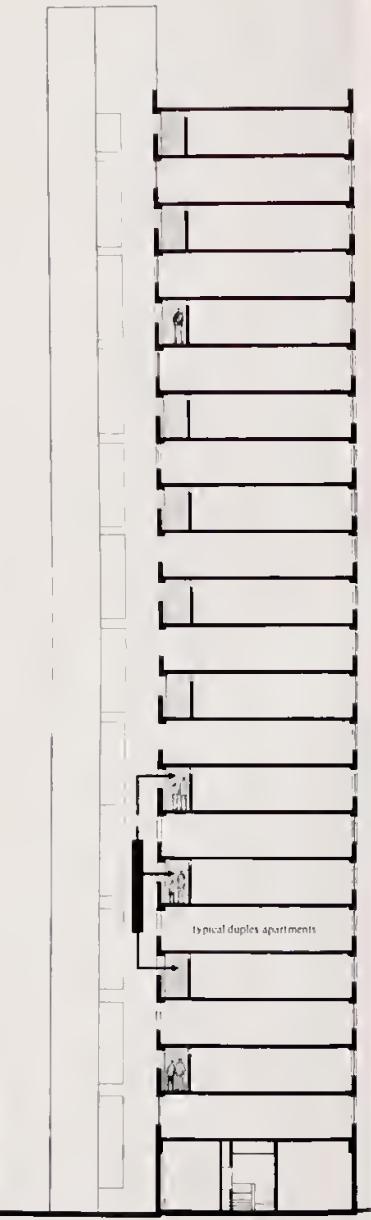
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40b



open parking structure



41

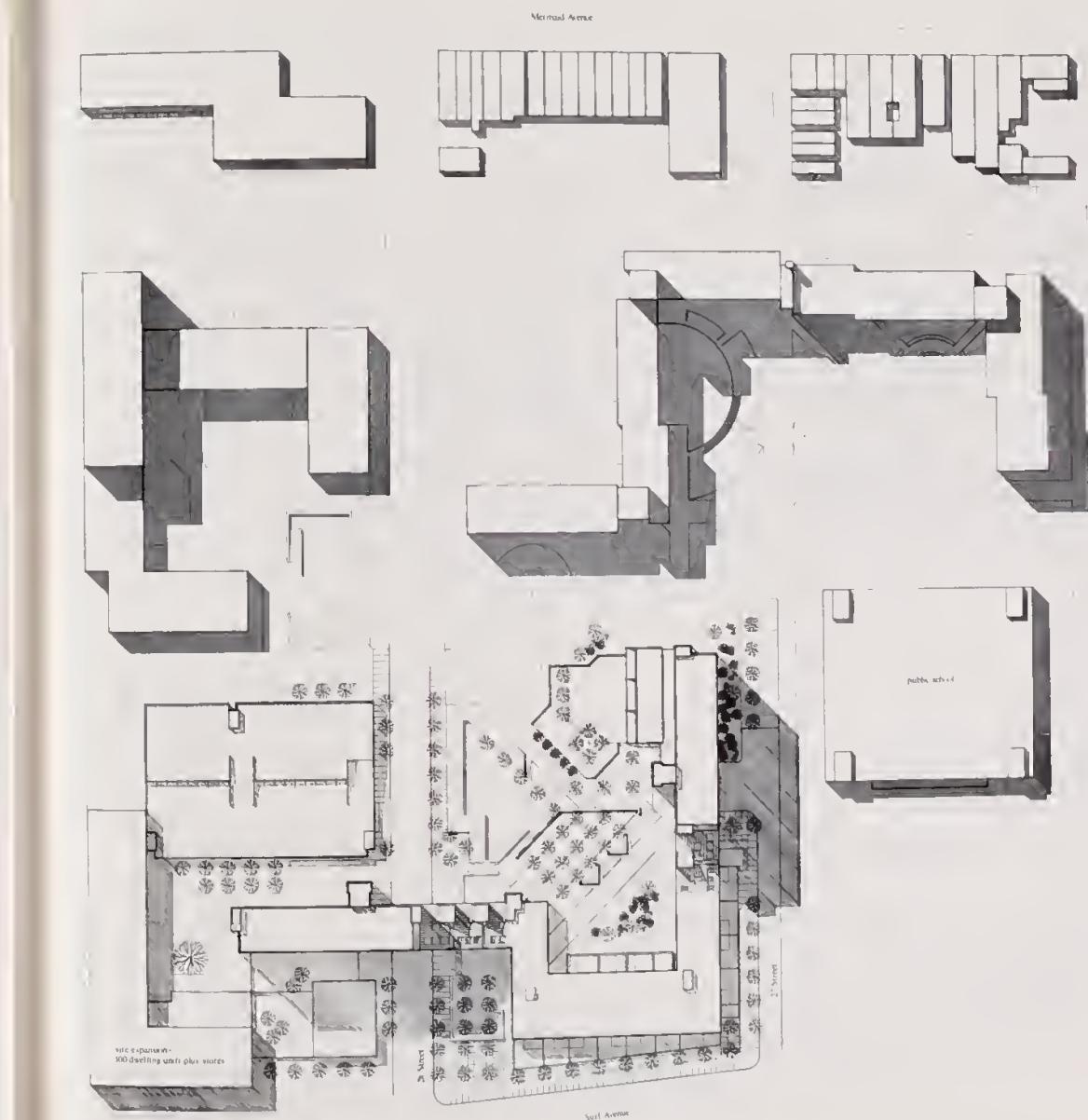
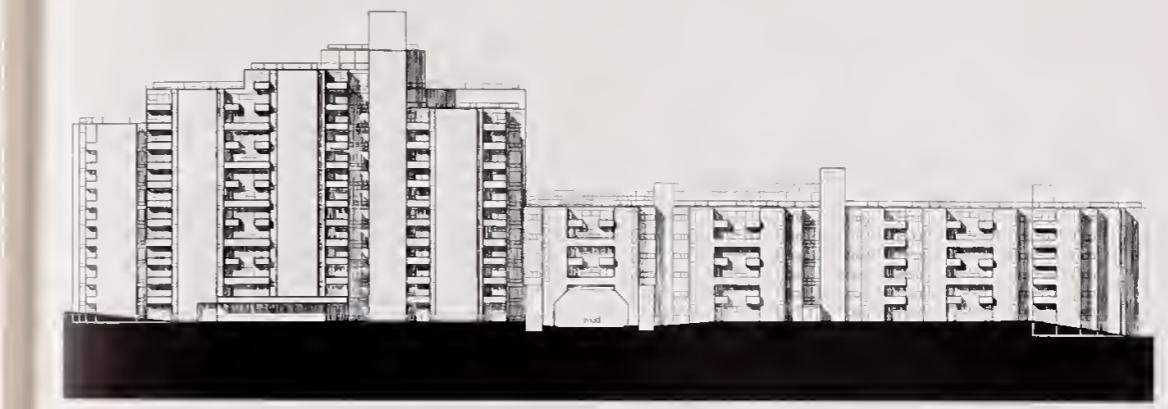


fig. 40a: apartment distribution diagram
fig. 40b: section through building and parking structure
fig. 41: site plan

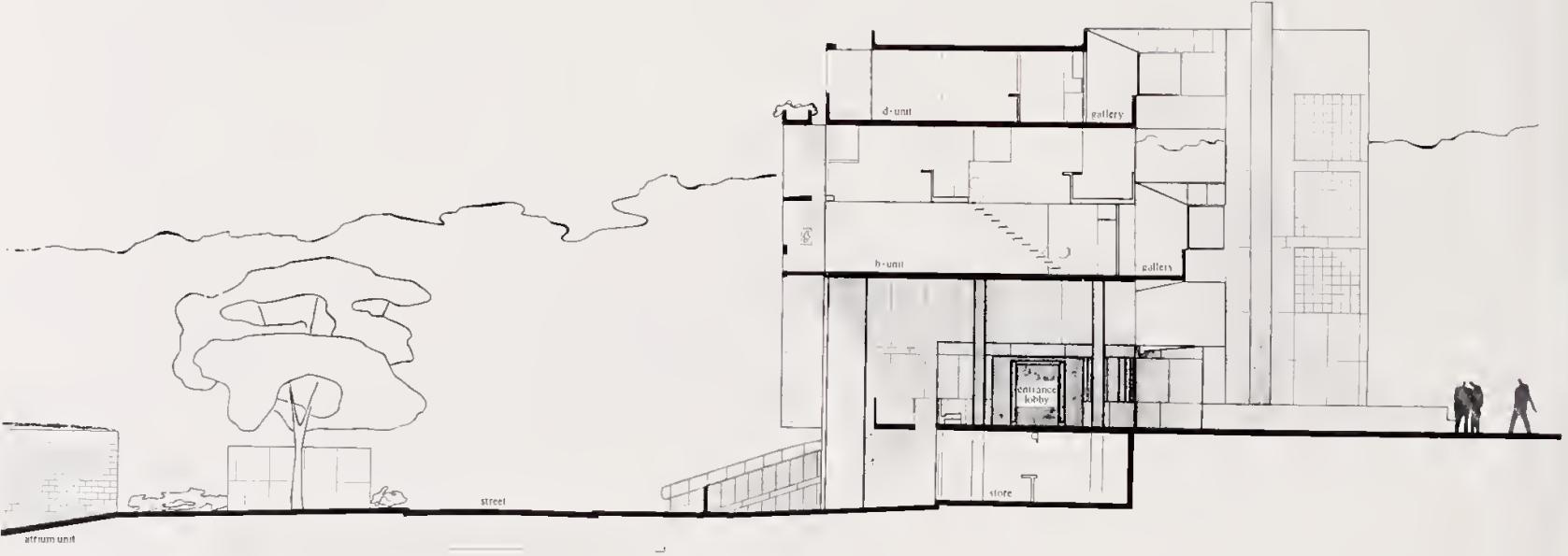
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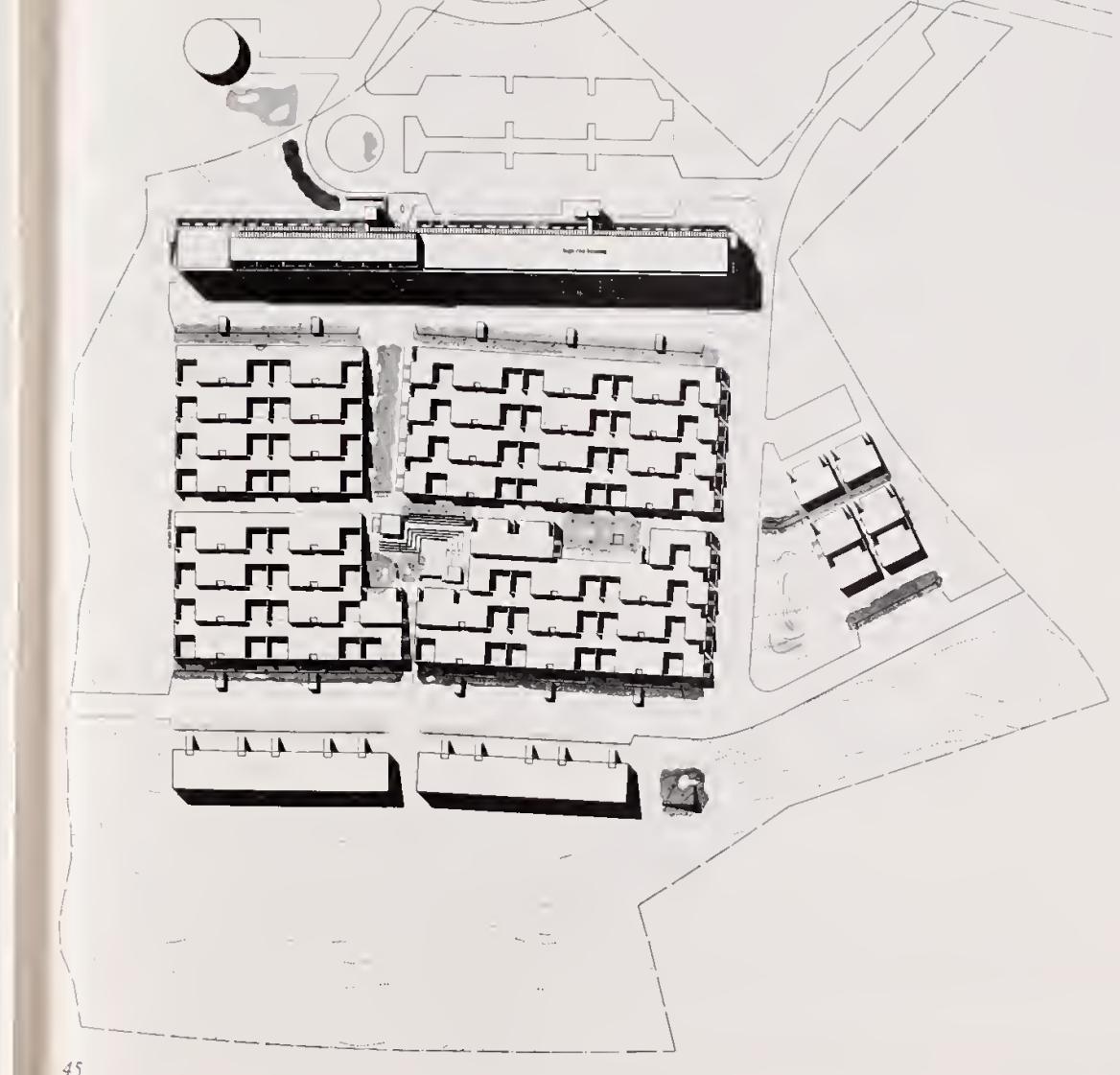
State Hospital Site
Binghamton
Ulrich Franzen & Associates, architects

fig. 42: site plan
fig. 43a: court elevation
fig. 43b: one, two, three bedroom units

52



44



Scattered Sites Housing
Ithaca

Werner Seligmann and Associates, architects

*fig. 44: high rise building section at main entrance
fig. 45: Elm Street site plan*

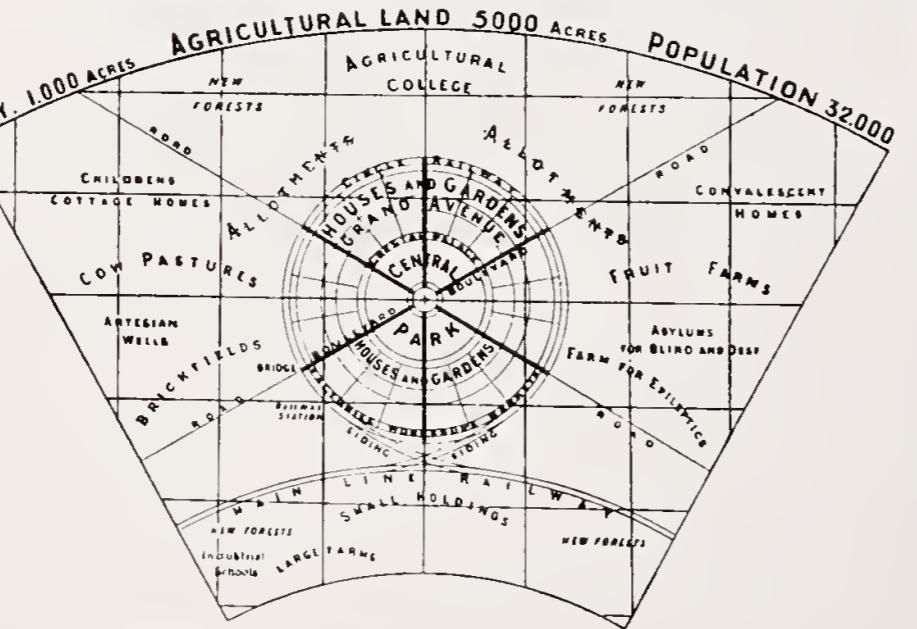
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new towns

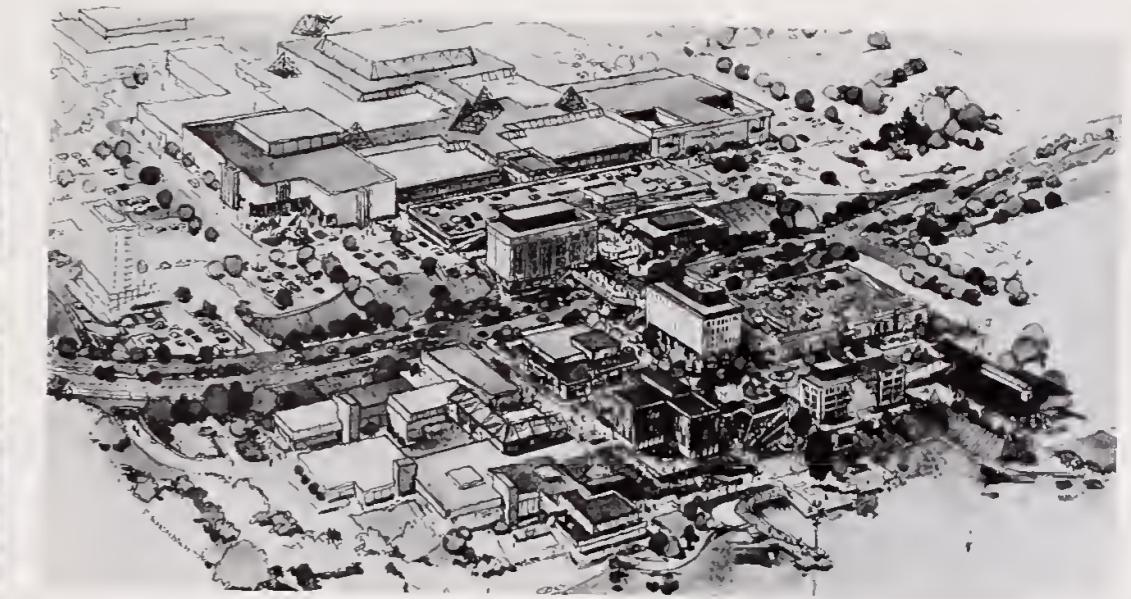
Start over. Innovate rather than inherit. Plan an ambience for man in which the ideal rather than the political and proprietary expedient is possible. These have long been the motivating aspirations of new town planners and developers.

New towns are an old idea. More than 2000 years ago Miletus was founded in Greece partially to expose new planning principles. Four hundred and fifty years ago Leonardo da Vinci recommended that 10 new towns be built surrounding Milan to relieve pressures on that city.

During the industrial revolution the cities grew rapidly. Many components of desirable urban life were ignored. Little thought was given to adequate housing, convenient and pleasant parks, suitable public transportation, recreation and preservation of the fundamentals of any environment—its water and air.



46



Other kinds of new towns also emerged. Company towns like Pullman, Illinois were focused on a single industry, and founded to facilitate an efficient manufacturing process away from the distractions of city life. Utopian communities such as Robert Owen's New Harmony, Indiana were established to promote and express a cherished ideal or desired way of life for adherents.

Generally, the single purpose settlements did not grow. They remained static places. And many of the communities based on the Garden City ideal were in fact no more than garden suburbs with little commercial space and no job base. These have come to be absorbed into larger communities as nearby cities spread, bringing with them attendant financial, social and political change.

In the last several decades a refined and promising notion has developed: the balanced new community or New Town. The New Town as now understood incorporates residential and open space amenities characteristic of the Garden City with opportunity for commercial and light industrial employment previously more generally associated with the Company Town. Educational facilities, transportation systems, a planned relationship between activity centers, and ample recreation areas are positioned to provide maximum convenience without sacrifice of environmental grace.

A number of New Towns were begun in England following the New Town Act of 1946, and since then others have been started in Europe. Several are shown in the exhibition slides. Only two New Towns have been started in this period in the United States, Columbia and Reston, both in the 1960's and both near Washington, D.C. (fig. 48, 49).

fig. 46: Ebenezer Howard, Garden City Diagram, 1898
 fig. 47: Clarence Stein and Henry Wright, Chatham Village, near Pittsburgh, Pennsylvania, 1938 (courtesy of Frederick A. Praeger, Inc.)

fig. 48: Columbia, Maryland, artist's rendering of the downtown, 1970 (courtesy of The Rouse Company)



49

There are significant differences in emphasis on aesthetics, land use, transportation and financial planning between Columbia and Reston. The most crucial difference is that Columbia is based on an economic model of interim goals for cash flow and sales to assure a long term profitable land merchandising and community building operation. Reston, in contrast, was initially based on principles of aesthetic quality and financial intuition, thereby leading to good design and unpleasant economic consequences in the early years of development, culminating in sale of a large share of the project to the Gulf Oil Corporation. Both Reston and Columbia are totally new places developed by private groups from uninhabited farm land. Taken at the highest level, their goal is to become a place where the idealized life of leisure and work in a sympathetic environment envisioned for our post-industrial society is possible.

Many problems inhibit New Town development. Focal points such as institutions, schools and jobs are needed to attract and hold people. Costs of initial development of these facilities are high. All structures must be built from scratch. So must all infrastructures and service plants such as electrical, water and sewer systems, roads, public transportation and the like. Large amounts of land must be reserved and paid for initially, but sale and utilization of that land is slow, progressive and phased, generally requiring decades for full development.

In spite of these inhibiting considerations, New Towns offer a means of relieving older cities of congestion and of settling emptier reaches of the country. Recognizing their potential, the National Commission on Population Growth has recommended construction of 110 New Towns in the next 30 years to house 20 million of the expected 100 million new residents of the United States.

In New York State, two New Towns are in initial planning stages. These are shown in slides in the exhibition. One, Amherst, under study by the English planning firm of Llewelyn-Davies Associates, is proposed in conjunction with a major new campus addition to the State University of New York (fig. 50). At present Amherst is a suburban community 10 miles northeast of Buffalo with a population of 90,000 residents. By 1985, as a result of the university expansion program and general growth patterns of settlement in the Buffalo metropolitan area, a population in excess of 200,000 is expected.

To accommodate part of this sharp demand in an orderly manner a new community on 2,400 acres of land just north of the campus is proposed. An ultimate expected population of 25,000 will be able to select housing appropriate to all ages, incomes and occupations. Commercial facilities including retail, hotel and conference areas are clustered within the community on the northeast edge of the campus to serve university and community needs. In addition, local shopping plazas related to schools, churches, and libraries are dispersed within the community. Recreation and open space facilities will range from active play areas near schools to parks and lakes in residential districts. Though some industrial uses are called for, the substance of this new community results from requirements which university expansion will impose on Amherst. In connection with the university's program and the growth of Amherst, the potential for a high speed transit corridor into downtown Buffalo is under consideration.

fig. 49: Reston, Virginia, 1965, aerial view of Lake Anne (photo: Stan Wayman)

The second new community, Lysander, is 12 miles northwest of Syracuse on land used for a Federal munitions factory during World War II (fig. 51, 52). After 26 years of neglect, the architecture and planning firm of David A. Crane and Associates is developing a scheme by which 2,700 acres of unproductive land can make a significant contribution to the existing town of Lysander, to the employment base of Onondaga County, and to the quality of life for its residents. Proposed is a balanced new community for 18,000 people with low density areas of single family houses built around a golf course, marina and open space. In contrast to this suburban environment is a new community center of higher density. Its crescent form contains an educational complex for 4,000 students, offices and pedestrian shopping areas. Special emphasis is placed on industrial zones to which 800 acres of land are allocated. Up to 16,000 new jobs for residents of Lysander and the surrounding region will be generated through successful utilization of this space.

To make these New Towns which contain housing for all income groups feasible, the economic strength of the UDC is clearly fundamental. It must be used to acquire land, support planning studies and provide initial development funds. Through the long course of full development, UDC resources must be utilized to perform a land banking service. In this way the UDC can underwrite the immense financial burden of holding extensive undeveloped acreage until it is needed. Private developers will build and finance most of the construction in a phased program according to stated objectives of the total community plan.

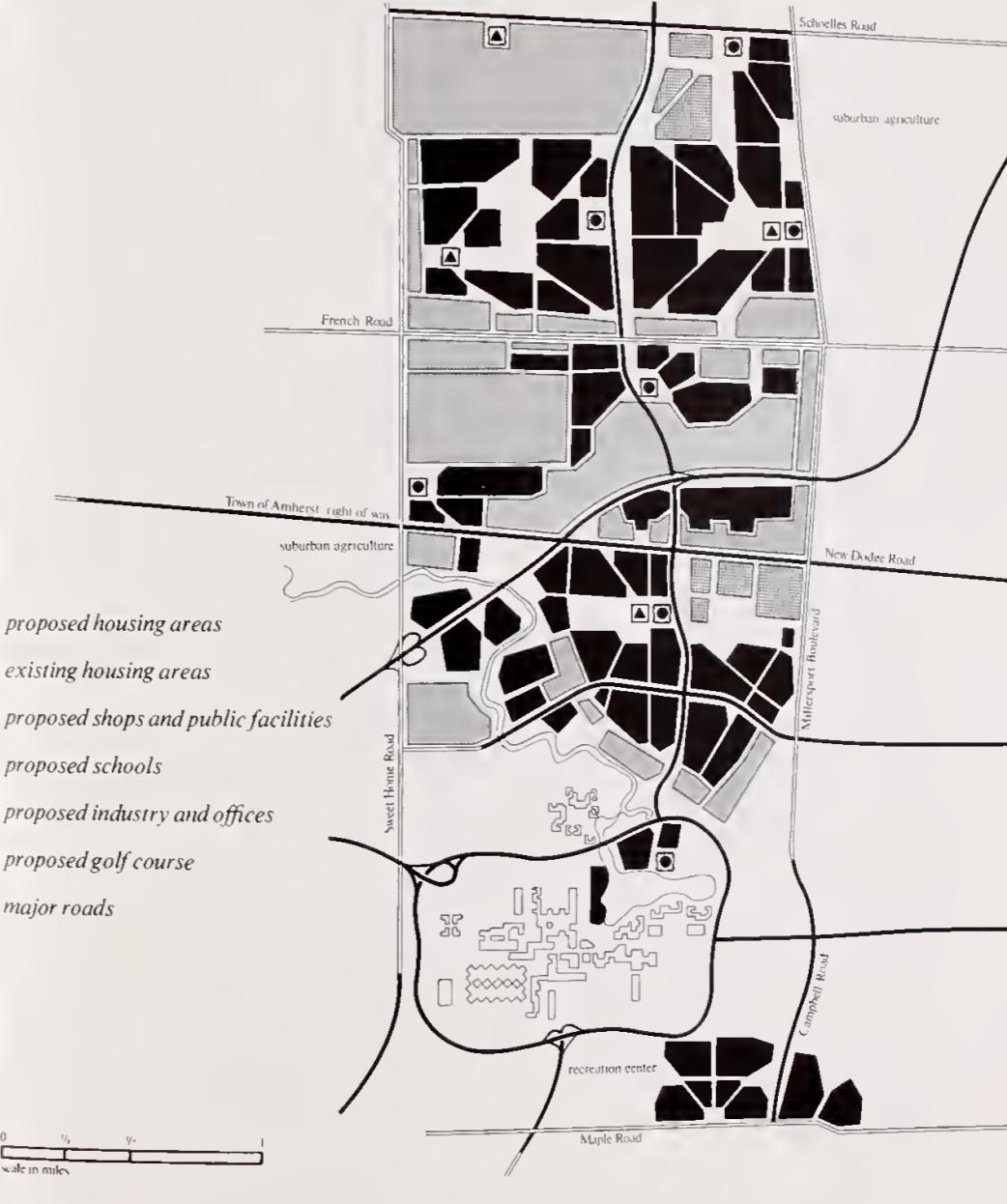


fig. 50: draft development plan

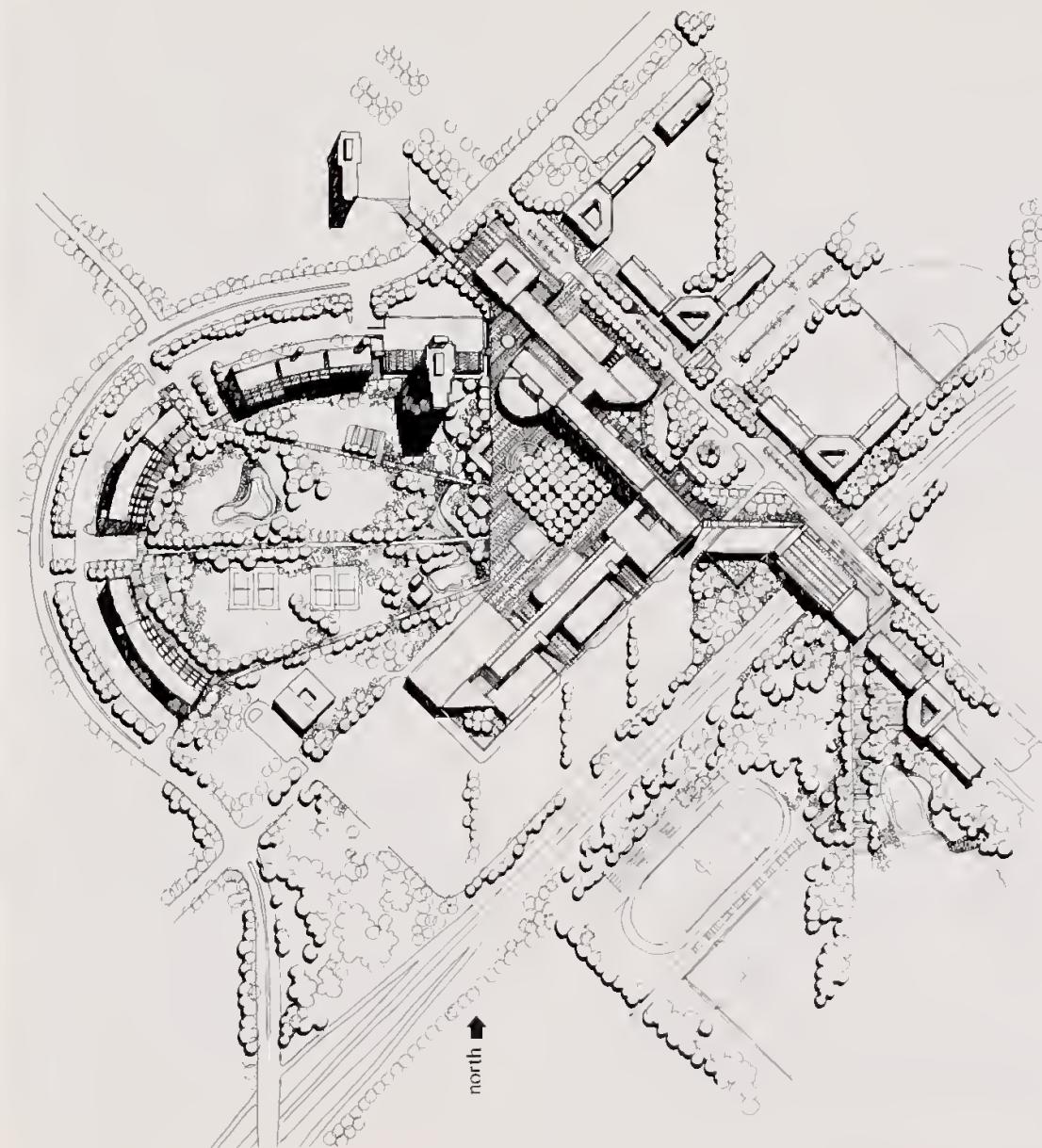
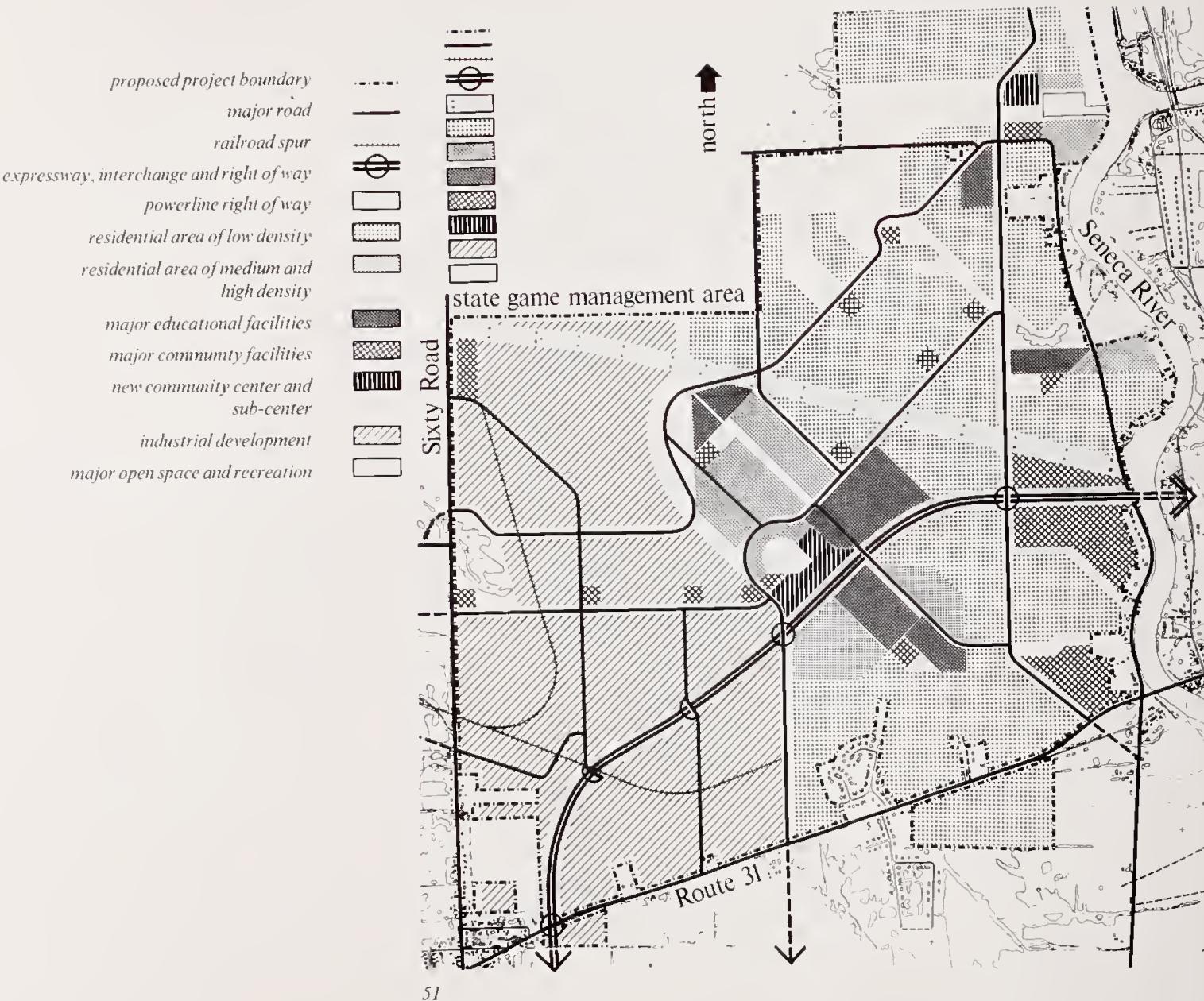
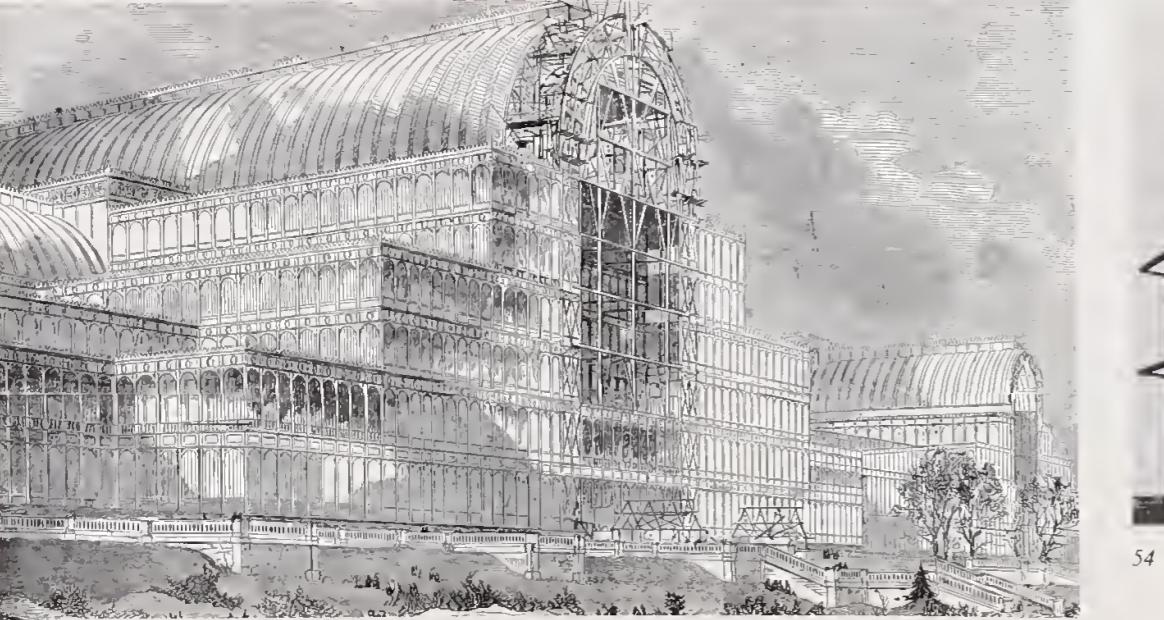


fig. 51: general development plan
fig. 52: illustrative site plan of town center



technology

Men have stood on the moon. Yet cities are still built by methods relatively unchanged since the medieval guilds institutionalized specialization in the crafts. The result is that housing, one of the necessities of life, is made and priced as if it were a luxury handcrafted sculpture.

A more progressive approach to building was tested and publicized as early as 1851 in England. That year the Crystal Palace, an exhibition hall covering twenty acres (four times the ground of St. Peter's Cathedral) was constructed of prefabricated iron, glass and wood elements in six months (fig. 53). It was recognized at the time as a revolutionary approach to architecture.



54

Since then much progress has been made in the application of the world's technology to automobiles, ships, airplanes and rockets; but seldom to the process of building ordinary structures for people to use and live in. A notable exception is Buckminster Fuller's Dymaxion House of 1927 derived from aircraft industry structural innovations of the day (fig. 54). A central duraluminium mast, housing all mechanical services, supports a double skin of plastic of different transparencies according to lighting needs. This skin and partition walls are hung by wires from the apex of the service core mast. The Dymaxion House remains a prototype, but not an influential one. Since then Fuller's Geodesic domes, structures based on molecular organization to gain maximum strength from minimum material, have been widely accepted when long spans at low cost are needed. Among some younger architects, such as the English Archigram group, technological potential of totally scientific building has led to romanticized imagery for plug-in, even self propelling structures and cities (fig. 55).



55

For ordinary use the totally scientific house is unnecessary. Most people seek a more conventional place to live in. Over the years, generally in periods of national crisis, starts have been made to produce an economically sound, flexible manufactured dwelling. During World War II the Federal government initiated a crash program at Indian Head, Maryland to produce demountable prefabricated structures. Today, as housing completions fall drastically behind need, the Federal government is again sponsoring a demonstration program, Operation Breakthrough, in which 22 privately developed new construction systems will be tested on 11 sites. Others are under evaluation by companies not in the program as well as by the UDC. All materials, all means of assembly, all ranges of size and price are being investigated. One, a full size two story prototypical manufactured house designed by Wells/Koetter, architects, and built by the General Shelter Corporation is included in the exhibition (fig. 56, 57).

Though totally new fabrication systems may eventually offer large scale economies, some advanced building methods are already in use. A system of wood and concrete catalogue stock items with accessories, extras and model variety has been evolved over the last 20 years by the architect Carl Koch, the inventive designer of the Acorn house (1947), Techbuilt (1954) and Techcrete systems (1963).

The most widespread redirection of technology within the building world has been the transformation of the wheeled trailer into a so called mobile home. Last year 20 per cent of all new single family dwellings in the United States were fitted out and furnished modified trailers, sold at costs unmatched by conventional housing, even when composed of many pre-fabricated elements. And the proportion is growing. So is research into ways of stacking, arranging, extending and grouping to gain variety, flexibility and responsiveness to concepts of land preservation and aesthetic quality.

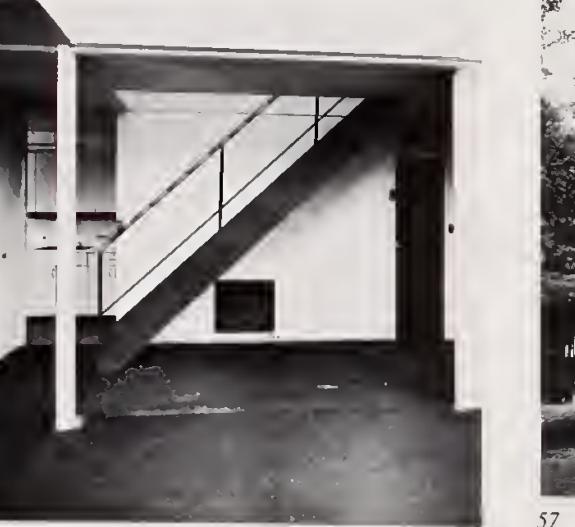
fig. 53: Sir Joseph Paxton, Crystal Palace, London, 1854 (Bettman Archive)

fig. 54: R. Buckminster Fuller, Dymaxion House, view of model, 1927

fig. 55: Ron Herron, Mobile City project, 1964

Manufactured House
Wells/Koetter, architects
General Shelter Corporation, manufacturers
1970

*fig. 56: view of interior
fig. 57: view of exterior*



56



57

A different sort of technical inquiry at a more detailed level is being undertaken by the Urban Development Corporation. A recently developed program seeks to evaluate the real cost of traditional components or proposed new products in relationship to the construction process. Once actual costs are known, discussions are held with manufacturers and union officials to discover ways to improve process, to streamline assembly, in short to cut total cost and total time requirements for any kind of building.

Called the Cost Analog System and developed for the UDC by Tishman Research Corporation and Marvin E. Goody and John M. Clancy, Inc., this rational evaluative approach has already led to the identification of a number of products or processes which combine good performance with cost reducing features. Some of these such as wall systems, structural trusses, plumbing units and paint sprays are described on slides in the exhibition. These first innovations are expected to save up to 11 per cent of construction costs and 36 per cent of construction time.

By treating the large number of dwellings constructed for the UDC as an aggregated market, and by developing systematic techniques for accepting new products and techniques, UDC hopes to create a larger market and more receptive conditions for construction innovations. The absence of such conditions has inhibited industry from developing and introducing significant cost-saving methods and materials into the building process.

University resources will also be used to improve the technique and technology of building. A program to test and evaluate new products has been set up at Cornell. It is contemplated that research programs to train professionals in building sciences will be initiated at a number of universities. A cadre of experts in a new, badly needed and long ignored discipline would be trained. Within government, universities and business they would help to redirect technological achievements to the construction field and work to develop new and better methods of building.

